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HOW TO GROW ROSES



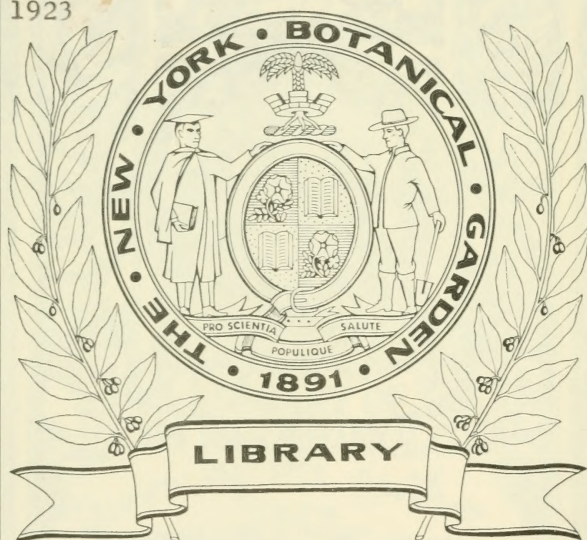
ROBERT PYLE

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HOW TO GROW ROSES

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WITH THE

COMPLIMENTS OF THE AUTHOR



If you are tempted to commend the printer or his pigments for this reproduction, it is well to remember that **RADIANCE** herself is many times more charming. She is a bountiful bloomer and keeps on producing when many of her sister Roses are resting.

HOW TO GROW ROSES

BY

ROBERT PYLE

President of the American Rose Society

FOURTEENTH EDITION
REVISED AND ENLARGED

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DEDICATED TO

ELIZABETH POWELL BOND

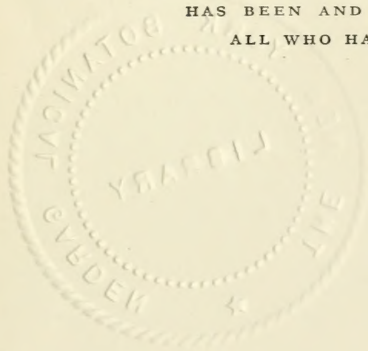
DEAN EMERITUS OF SWARTHMORE COLLEGE

WHOSE INFLUENCE

LIKE THAT OF THE ROSES SHE LOVES

HAS BEEN AND IS A BLESSING TO

ALL WHO HAVE KNOWN HER



INTRODUCTION

"Take thou this rose."

—J. A. SYMONDS

TO MAKE rose-growing easy for everyone has been the intent and purpose of this book from its very beginning many years ago. Almost with each successive edition its size and scope have been enlarged. Every succeeding year brings new roses, although not all of them are improvements over existing sorts. New methods also come into use. Both new roses and new methods must first be tested to find the best.

With a country so large, with a climate and other conditions so varied, no narrow or single point of view avails. Satisfactory conclusions can be drawn only after a broad survey. This work has been built by the author upon an experience that has had various points of contact: (1) By personal visits to the rose-gardens and rose-growers in most of the important rose centers of two continents; (2) by correspondence extending over a quarter century with rose patrons in every state of the Union and also abroad; (3) with audiences from the lecture platform in many states; and (4) for the past ten years as an executive officer of the American Rose Society, working shoulder to shoulder with those devoted to making the rose in America universally loved.

So many have helped to make this book possible that any attempt formally to name them would result in a catalogue of loyal helpers, in office and home, in the well-equipped Mount Pleasant Press, and in the five libraries in Boston, New York, and Washington. To all these I am grateful, also to Stanley K. Wilson, who assisted in many ways, and especially with Chapters I and VII, which, except for his happy literary development and interpretation of my message, would not so surely breathe the atmosphere or reflect the delights which I know you will find among roses. To Prof. Charles S. Sargent, Mrs. Harriet R. Foote, Mrs. Aaron Ward, Rev. Edmund M. Mills, D.D., Dr. Robert Huey, J. H. Nicolas, Theodore Wirth, Wm. C. Egan, C. E. F. Gersdorff, F. L. Mulford, Director Charles E. Moore, Paul A. Kohl, Jesse A. Currey, and

H. L. Collier, those well-known rose experts whose contributions make up Chapter XI, I hereby express deep appreciation.

Frequent use has been made in this volume of the work and findings of the American Rose Society, principally as published in the "American Rose Annual," edited by J. Horace McFarland, whose permission and kindly coöperation are hereby gratefully acknowledged.

How universal has been the devotion of the race to this "flower of flowers" is attested by the praise of poets throughout the ages. I like to think of the passages quoted as messages of sweetness and beauty borne by the flowers from their Creator and by the poets caught and distilled into verse like precious attar of roses.

Do not these thoughts suggest that we, too, may get our messages direct from that same Great Source if we but attend at Nature's shrine? Shall we, with Thomas Edward Brown, be able to say:

"A garden is a lovesome thing, God wot!
Rose plot,
Fringed pool,
Ferned grot,
The veriest school
Of peace; and yet the fool
Contentends that God is not!
Not God! in gardens! when the eve is cool.
Nay, but I have a sign;
'Tis very sure God walks in mine."

May the pages which follow lead the reader straight toward a richer practical experience in a pastime which "age cannot wither."

R. P.

Rose Hill, West Grove, Pa.

March 31, 1923

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"O lovely Rose! to thee I sing!
Thou sweetest, fairest child of spring!"

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CHAPTER I

THE COMRADESHIP OF THE ROSE

*"We bring roses, beautiful fresh roses,
Dewy as the morning and colored like the dawn."*

—T. BUCHANAN READ

ROSES! The very word is fragrant. It is a caress, a magic incantation. Exquisite memories lie in its gift. This five-petaled word, it is safe to say, enshrines more mental pictures of pure and enduring beauty than any other in the garden of speech. Life admits no word to more tender intimacies. As children we dance to its nod down sunny aisles of laughter; as young men and maidens we seal with it the betrothal kiss; and at our journey's end we call upon its living fragile loveliness to breathe denial of death itself.

Since history was first written the rose has been associated with the most important and vital, as well as the tenderest, events in the life of man. For centuries it has been fully recognized as the Queen of Flowers, honored alike by poet and by king. Yet such varieties as Ophelia, Sunburst, and Frau Karl Druschki the ancients never knew. What would have been their ecstasies if they could have been privileged to enter the gorgeous Roseaie de l'Hay of M. Jules Gravereaux, near Paris, with little doubt the finest rose-garden in the world!

This permanent garden includes among its thousands of varieties specimens said to have originated in the sixth century, B.C., thus providing an antiquarian interest which is embellished by the addition of hundreds of varieties quite unknown to that epoch of history. Roses from every continent are arranged and trained in all conceivable styles, from borders of Baby Ramblers to giant Tree roses, 15 feet high and 10 feet spread. Tunnels completely covered with climbing roses pierce the garden, with here a bit of statuary, there a fountain flashing in the sunshine.

And everywhere, roses! From the broad-petaled, deep red Lion climber to the magnificent M. Gravereaux, named for the originator of this "bower of bliss," they smile up at one naively

from their box-bordered beds or salute with decorum from their climber trellises. Spellbound, one stands and gazes down the long vista of color-shot beds, back-bordered with still other climbers in tumultuous bloom; or absorbs the bewildering prospect of cloistered arbors and festooned balustrades, of quaint archway entrances and artistic screens; or dallies along disappearing pathways so well planned that every turn offers a fresh surprise, each one more entrancing than the other!

Hidden by an encircling temple of trees deep in the heart of this paradise is an open-air theater with turf seats, and, along the front of the stage, for footlights, a brilliant row of blooming roses. Here, in charming French fashion, the host was wont to entertain his guests with music—literally making this most eloquent of gardens vocal!* (See illustration on page 158.)

In England, before the war, nearly everyone grew roses. Dazzling vistas of roses were to be seen in the hedge-rows, along the country roads and lanes. Gardens fairly teemed with flowers, and each person seemed to be striving in friendly rivalry with his neighbor. What induced this extraordinary enthusiasm for the rose? Simply the fact that it is without a peer among all the flowering plants. The rose presents nearly every floral shade, in combination far more seductive than exotic orchids; and, above all, its delicious fragrance gives us the enjoyment of another sense—the crowning feature, in which no other flower can compete with it.

When the French mystic, Constant, said, “*Je ne suis pas la rose, mais j’ai vécu avec elle* (I am not the rose, but I have lived *near* the rose),” he phrased happily the satisfied yearning of many a heart for this incomparable comradeship. But it is especially for those whose desire to “live with the rose” has never been realized that this little book has been written. The author’s aim has been very practically and simply to show how anyone, with no more than a sliver of ground, may grow roses; and at the same time to ignite other hearts with the ardor of his own enthusiasm, with that latent passion for beauty that rose-growing so surely releases.

*If any reader wishes to visit *Roseraie de l’Hay*, access to which is by invitation only, Mr. Robert Pyle, President of The Conard & Jones Co., West Grove, Pa., will gladly furnish, upon request, a card to the present owner, M. Gravereaux, son of the founder.



For a long time rosarians have dreamed of and waited for a choice double yellow Rose. DUCHESS OF WELLINGTON here shown comes nearest yet of any Hybrid Tea to filling this demand satisfactorily.

For "living with the rose" is something more than the mechanical operations involved in growing it, indispensable as those operations are. This book deals succinctly and dispassionately with those operations; striving to omit no item of interest or importance, and, once launched on the technique of rose-culture, "sticks to its last." But it is less than just to this matchless flower to ignore altogether the refining, and even ennobling, influences of rose-culture. Let us merely hint at that! No true lover of roses ever rants. But, if you want proof, study the face and deportment of your friend who grows roses: see if there is not a particular stamp of serenity, a certain sober poise, about him; deny if you can that he has been touched by something a little saner than the ordinary concerns of life, something a little sweeter, something that is visibly *emancipating*!

But enough! That's the kind of thing over which the rose-grower himself would be the last one to wax assertive; indeed, perhaps but dimly realizes it in himself. When he fraternizes with other rose-culturists, however, ah, then—then is the truth made manifest. The unmistakable "garden-look" spiritualizes these faces that have exchanged intimate glances with the rose. Perhaps as good a way as any to state the miracle would be to trans-



Nearly every child is fond of flowers

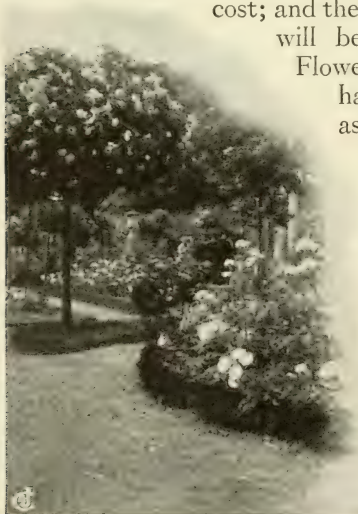


Cloistered arbors and festooned balustrades

pose that cynical epigram from the Sanskrit, "He that plants thorns must never expect to gather roses," and read, "He that plants roses never will gather frowns."

What is the formula? Well, there's no magic in it! Just a little patch of ground; just a little daily loving care; just a little cost; and the result to you and your neighbors

will be the glory of the Queen of Flowers. Amateurs are now able to have an all-summer "feast of roses" as well as the skilled professional, and it is the amateur's rose-garden, especially, that we have had in mind when writing the following pages.



Note this giant Tree rose

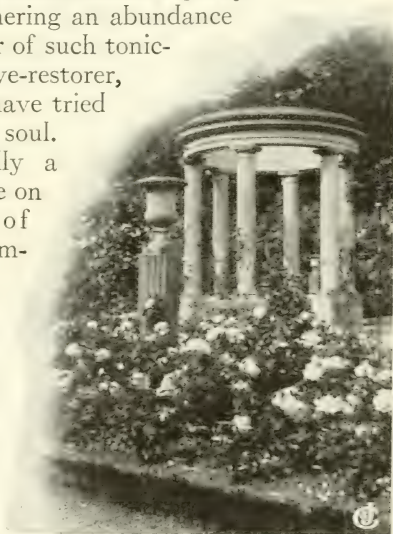
A large garden is not required. Two or three dozen good plants, of the modern and greatly improved sorts, properly selected, will yield much enjoyment; while a garden of roses with somewhat greater variety and extent can readily be made a summer-long delight.



As they smile up naively from box-bordered beds

In spring, one can have the pleasure of building air-castles about the plants. When the warm days of June arrive, these air-castles will have taken substantial form. You may now go from plant to plant, giving each a little daily attention, contrasting one proud beauty with another equally queenly, and, best of all, gathering an abundance of lovely roses. Half an hour of such tonic-toil each day is a superb nerve-restorer, and, as many of those who have tried it realize, it is also food for the soul.

But this is fundamentally a *practical* book. It is a treatise on *how to grow* this Queen of Flowers. It is designed, sympathetically and simply, to initiate the beginner into this culture of beauty as well as to confirm the more advanced amateur in his technique. It is planned, in short, to show that by setting out the right plants of the right sort this spring, cut-flowers may be had



The Temple of Love

from these self-same plants during the last days of May, and thereafter a continuity of bloom almost unbroken until the frosts of late autumn herald the approaching winter.

If it does no more than this, it will have caused pleasure to many who have never yet shared this creative experience—and thus will have justified its existence. If, however, those spiritualizing and refining overtones which the rose inaudibly sounds to those who love it shall be transmitted by these pages, then the author will know that his message is literally one of “sweetness and light.”



These roses were once only a dream in some one's mind



CHAPTER II

WHERE ON MY PLACE CAN I GROW ROSES?

"Roses that down the alleys shine afar."

—MATTHEW ARNOLD

FIRST consider what kind of rose-garden you will plan. Roses seem to enjoy being arranged in countless ways.

Will the first show of bloom to burst into view, as one approaches your home, be on your pergola, or arbor, or rose-covered summer-house? If none of these furnishes appropriate setting, probably your banks or fences will be clothed or beautified. A variety of types, shown on the following pages, is available, and choosing from these will become a delight.

Perhaps your fancy may picture prosperous beds, abounding in a wealth of bloom, to be seen across a sweep of level lawn, or from your favorite room in the house, or even hidden beyond the curve in your garden-walk.

The formal rose-garden, too, is important, especially on the larger place. There are excellent reasons why the rose-garden should have a domain all its own. These fastidious creatures that so well repay your thoughtful care may well be grouped and with greater resulting effectiveness. In no other case, perhaps, does careful planning pay so well as in the formal garden. (At this point it may prove helpful to turn to pages 29 and 30.)

In these brief suggestions of rose-garden possibilities let us recall vividly the value of the rose in the landscape. Here again a knowledge of varieties is important. Landscape architects are recognizing more and more the noteworthy species



The formal garden is incomplete without roses

which are valuable in mass-plantings for showy effects, for retaining embankments, for bordering driveways, or even for certain types of hedges.

Or you may wish most for a garden of roses from which to cut bouquets, so that "the glory of the garden" may be reflected in your home. Good taste will suggest the right roses—one for this vase, a bunch for that bowl, a spray for the guest-room, still others for the hallway or the dining-room table, then surely some for boutonnieres, and at times for "state occasions." Surely anyone who has experienced the exquisite thrill welling up in the soul from the presence of choice roses well arranged will be eager to develop the skill needed to make the best use of nature's garden-gifts.

Several available spaces for the rose-bed are usually to be found on the average home-grounds. The author has had the good fortune to visit a number of rose-gardens that are famous—and others that deserve to be—and this may be said of nearly all: that they lie on the genial, sunny side of a generous group of trees or copse, but are open to the gentler breezes, and are not shut in or shaded.

When buying a new property, the selection of the most suitable spot upon it for the house is scarcely more important than the selection of a site for your rose-garden. You will choose a sunny room, if possible, for the indoor nursery, where the little fairies in your home may romp and play on a wintry

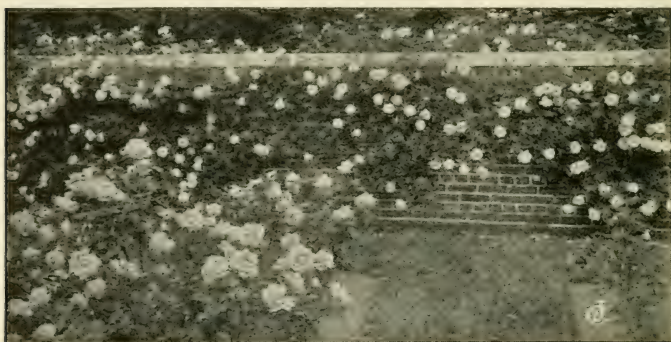
day; and so, too, will you wish to provide for the happiness and well-being of your rose-children, because only a few of them are prairie-born. Only a small section of this large family has been reared to bear the rigors of gusty, sweeping, or whipping winds at any time of the year, and from such, for the best results, they must be protected. It is not only the severe, cold winds of winter, or the raw, cutting swish of spring, but the hot, withering winds of summer, too, that may ruin the opening buds and spoil the almost ripe fruits of your labor.

Choose a place, therefore, or establish one, protected either by trees, a hedge, a wall, a building, or by some other wind-break. Even a hedge of roses, or climbers, upon a substantial trellis will avail, although a denser screen is more effective. Choose, too, a place where the sun will shine for not less than one-half of the day, preferably the morning. By this you will see that a space opening away to the south or southeast is to be preferred. We have noted equally successful rose-gardens entirely surrounded by hedges.

Avoid the too close shade of trees, or the proximity of tree



Roses in the outdoor living-room



This is Gardenia, running in revelry over the garden-wall

roots; they are ravenous robbers. If the roots can possibly reach over to your rose-beds, they will do it and steal away the nourishment you have provided. Therefore, either keep entirely away from them or, if you must dig your bed near them, put in a partition on the tree side to keep back the roots. Boards will do for a time; a concrete or brick wall, about 4 inches thick, will last longer.

Another point to remember is that "roses do not like wet feet." They seem to resent the ignominy of being subjected to standing in undrained ground. Avoid very low ground for this reason, and also because it is more subject to early or late frost, and that here roses will have greater tendency to mildew.

Try to combine in your choice as many of these conditions as possible, because, while no point is absolute, all are important. Don't stop or give up for the lack of some one of them. Be earnest about it, and you will soon provide the essentials. Mr. Chapman, the ornithologist, asked Theodore Roosevelt how he continually accomplished so much. Mr. Roosevelt answered that this had been his motto:

"Do what you can, with what you have, where you are."

That motto will prove most useful for the rose-grower.

"*Make a picture of your lawn.*" This is the first principle of landscape-gardening. Leave open the center spaces and plant about and along the edges. Allow this rule to guide you, then



PAUL'S SCARLET CLIMBER is the color "high-spot" of the garden. Ecarlate and K. of K., while also attention-compelling, do not strike so vibrant a color-note as does this blazing pillar of garden fire.

select places for your roses where they will do best and give you the most pleasure.

Some varieties, as for example the Rugosas and the "rose species," serve a very useful purpose when planted among the shrubbery. Many other uses, too, are described on pages 39 to 52. The bush roses, however, including the Teas, Hybrid Teas, and Hybrid Perpetuals, will prove most satisfying if segregated and not mixed too much with other plants.

The location will help to decide the shape of your bed, and it is mainly a matter of taste as to whether it shall be straight, curved, oblong, round, or square. The essential point to remember is this: You will want to get *within arm's reach of every rose in your bed*, many times in a year, *without stepping on the bed*. Not over 5 feet in width, therefore, and preferably $4\frac{1}{2}$ feet is a good rule to follow.

Arrange the roses 18 inches apart each way, unless they are very vigorous growers, in which case allow 2 feet for spread. In warm countries, where the growth is most luxuriant, and for the big bushy sorts, even more room will be required. Again, there is the other extreme as, for example, in making a border or edging of Polyantha roses, a fine continuous effect may be had by spacing them in the row at only 12 inches apart.

The young garden in the picture on page 22 is well done. Note the avenue effect produced by the double row of Standard or Tree roses on each side of the walk, set from 4 to 10 feet apart.



This diagram shows a bed 3 feet wide for two rows. A bed this width, "staggered," will require twelve roses to every 9 feet, twenty-four roses if 18 feet long, and larger beds in the same proportion.

The front bed on the left in the picture is $4\frac{1}{2}$ feet square, and contains nine roses. The front bed on the right, if $4\frac{1}{2}$ feet wide by 6 feet long, would contain twelve roses. The rear bed on the right of the walk, if $4\frac{1}{2}$ feet wide by 13 feet long, would contain twenty-four roses; and the long bed in the rear on the left, if $4\frac{1}{2}$ feet wide by 20 feet long, would contain thirty-six roses.

The actual distribution of plants within the rose-garden is a subject which needs more careful thought and study than is usually given by the average gardener. By way of suggestion, we are reproducing on pages 29 and 30, two designs, one a formal rose-garden, the other an informal rose-garden.

In the formal design there is shown by numbers the suggested distribution of the various forms of roses, with the idea of producing a pleasing composition and at the same time including a balance of form or habit of growth in a rose-garden. The design of the garden is drawn up more or less as an illustration and does not represent an existing garden. The boundary lines are shown with rose-poles connected by chains on which would be grown the many kinds of climbing roses. According to the various conditions, this boundary-line might be a low wall or hedge or fence. (See page 22.)

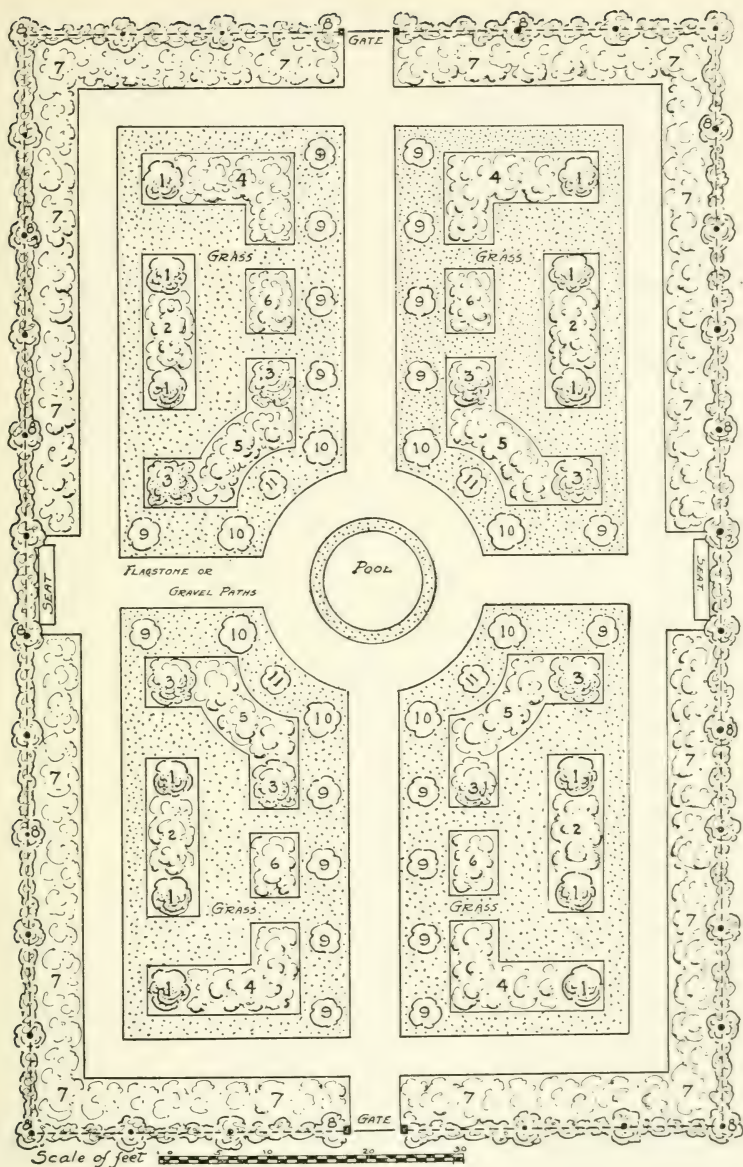
Number 1 represents the location for species such as *Rosa Hugonis*; No. 2, the tall and vigorous-growing Hybrid Perpetuals and, possibly, Hybrid Teas; No. 3, the vigorous and bushy kinds of Hybrid Teas; No. 4 Hybrid Teas of medium height; No. 5, Hybrid Teas of dwarf habit; No. 6, Hybrid Teas of dwarf and spreading habit; No. 7, Dwarf Polyanthas.

The space indicated on the plan would possibly contain more Polyantha roses than the average garden of this sort would warrant. Places could be found for growing perhaps a few of the unusual roses, and even some of the dwarfer growing species, without breaking up the continuous line and mass of color obtained from the dwarf Polyanthas, which act as a kind of frame to the garden.

Number 8, climbing roses; No. 9, Hybrid Teas in standard form; No. 10, weeping Standards or Standards with Wichuraiana hybrids budded on them; No. 11 might be dwarf Standards with the Dwarf Polyanthas budded on them.

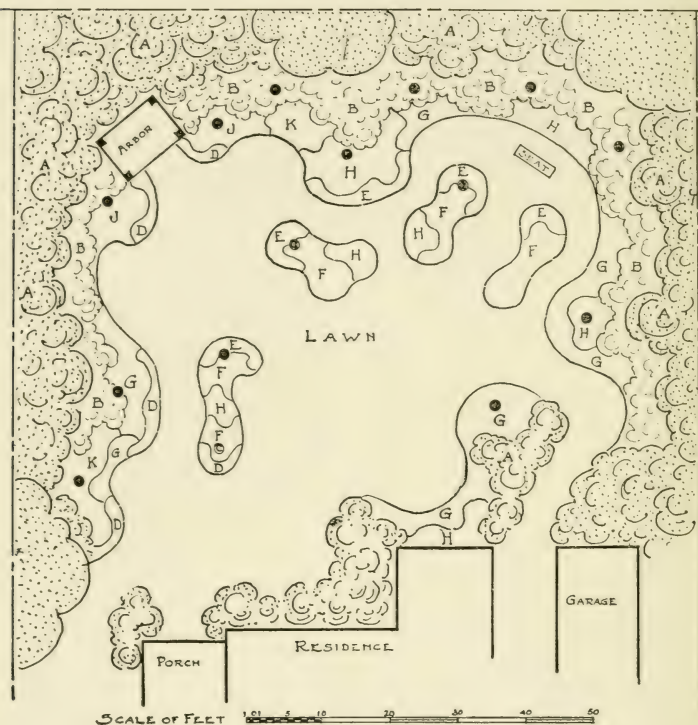
In the informal rose-garden, the rose enthusiast has a greater possibility of growing all kinds of roses. For example, a small lot of approximately 100 feet wide, with an imaginary house thereon has been used. It has been taken for granted that the owner would plant a background of various flowering shrubs and small flowering trees. In front of this background would be formed irregular shaped beds in which space could be apportioned for the various species and other kinds of roses, as will be described later. Additional beds could be cut in the lawn, making interesting vistas from various parts of the garden and from the house.

In a garden of this kind, one has the opportunity of growing many types of roses which ordinarily one is unable to use in a formal



Plan of a Formal Rose-Garden

Drawn for "How to Grow Roses," by Hammond Sadler, Landscape Architect,
of 103 Park Avenue, New York City



Plan of an Informal Rose-Garden

Drawn for "How to Grow Roses," by Hammond Sadler, Landscape Architect,
103 Park Avenue, New York City

garden—some of the old-fashioned roses, such as the Mosses, the Gallicas, etc.

The plan is lettered to indicate a possible arrangement of the various types and forms of roses. Letter A indicates the background of shrubs, in which might be included some of the strong-growing species of roses, such as Rugosas and Briars; B, the species. The small black dots indicate locations for rose-poles, which might be of varying heights on which would be grown different climbing roses. D indicates the location for the Dwarf Polyantha roses; E, Hybrid Teas of very dwarf and spreading types; F, Hybrid Teas of dwarf habit; G, Hybrid Teas of medium height; H, Hybrid Teas of vigorous and bushy habit; J, Hybrid Teas of tall and vigorous habit; K, Hybrid Teas and Hybrid Perpetuals of the very tall and vigorous kinds.

CHAPTER III

HOW TO CHOOSE THE CHOICEST

"A rose with all its sweetest leaves yet folded."

—LORD BYRON

THIS is a vital matter. The most complete and authoritative list of roses in our possession shows 10,281 varieties. The most complete collection in any one plantation that has come under our observation we did not attempt to count. It is said to contain about 7,500 varieties, including every known species and every variety now obtainable in the civilized world. (This garden, the Roseaie de l'Hay, will be found more fully described on page 13.)

The average number of roses actually in commerce in the different countries abroad prior to August 1, 1914, was approximately one thousand, while less than a half of that is the average number offered in America by the leading rose firms whose products can be relied upon as true to name.

When we recall that the average amateur must confine his selection to even a much smaller number than this, often to among only two dozen kinds, the paramount importance of a proper selection is quite apparent.

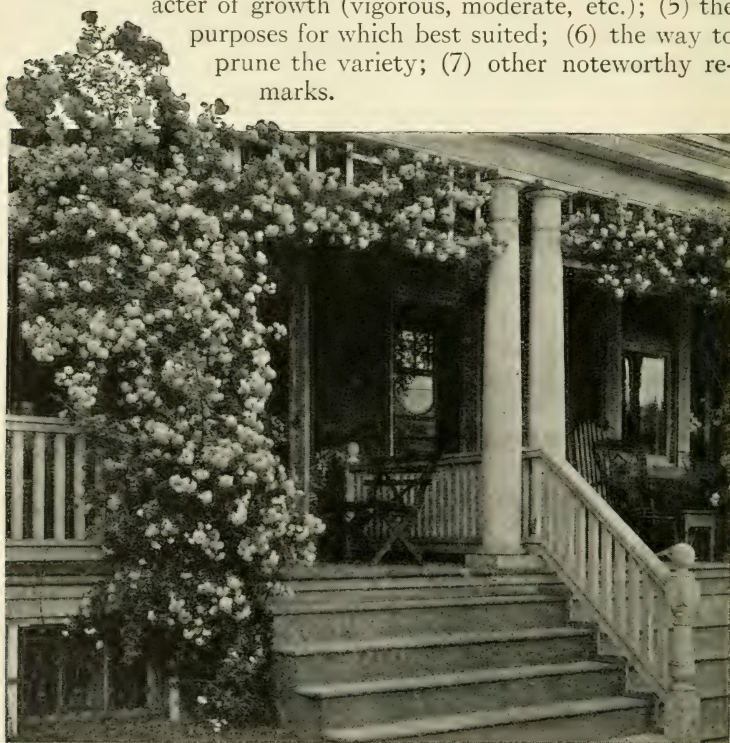
Dr. L. H. Bailey, formerly of Cornell University, and editor of that standard authority, the *Cyclopedia of American Horticulture*, says: "The success of the rose in this country is very largely a question of the selection of adaptable varieties."

Pemberton, in his excellent work, "Roses," says to beginners: "State your requirements to a *friend* who is an *expert* and leave the selection to him." This book would be a "friend" to every rose-grower—how "expert" you must judge from its contents.

America is a big country, and allowances must be made for differences in soil, climate, and other conditions. Rules are offered for use and application by the reader to the conditions that obtain in his or her locality. If there arise conditions not herein covered, the author will be glad from his own experience to assist readers in solving their individual problems.

Where do you live? The answer to this question is the first

key to the selection of the right roses. Some varieties will withstand severely cold winters from which other varieties would die. Do you want dwarf, bedding, pillar, or vigorous climbing roses? Would you prefer a great show for a month or more in the early summer, or a more or less continuous bloom throughout the autumn also? These various important characteristics will be mentioned in the descriptions of "Best Roses for America" on pages 101 to 119. The following explanations will enable you more fully to understand the terms used. We state after the name of each rose: (1) the class to which it belongs; (2) the color of the flower; (3) the character of the leaves, when it is particularly worthy of mention; (4) the character of growth (vigorous, moderate, etc.); (5) the purposes for which best suited; (6) the way to prune the variety; (7) other noteworthy remarks.



An arbor springing from a city pavement



The Glory of the Queen of Flowers

After the name of the variety, the class to which it belongs is indicated by the following abbreviations:

SECTION I

- T. Tea.
- Bour. Bourbon.
- C. China.
- HT. Hybrid Tea.
- P. Polyantha.
- TP. Tea Polyantha.

SECTION II

- N. Noisette.
- CT. Climbing Tea.
- CHT. Climbing Hybrid Tea.
- CP. Climbing Polyantha.
- CTP. Climbing Tea Polyantha.

SECTION III

- AB. Austrian Briar.
- Per. Pernetiana, or Hybrid Austrian Briar.
- D. Damask.
- HP. Hybrid Perpetual.
- M. Moss. Pr. Provence.
- R. Rugosa and Hybrid Rugosa.

SECTION IV

- Mult. Multiflora.
- Bank. Banksian.
- CL.M. Climbing Moss.
- SB. Sweetbriar.
- W. Wichuraiana and Hybrids.

In addition to 157 leading roses listed on pages 101 to 119 inclusive, see also (pages 168 to 172, Appendix C) a list of the important roses in each class named above.

It will be helpful to remember, when referring to the above four sections, that Sections III and IV contain the hardiest roses. Roses in these classes will live out over winter in the latitude of Philadelphia without protection, although all roses in this and colder regions will be the better for protection.

The classes in Sections I and II require careful protection in a climate like this, especially the first ones named in each section, which are better suited for growing south of Washington, D.C., and in correspondingly mild climates.

As to bloom, Sections I and II will bloom more or less throughout the growing season. Sections III and IV are mostly known as summer bloomers, and are in their greatest glory for only a few weeks in early summer. Some of the Hybrid Perpetuals and Hybrid Austrian Briars will also make an autumn showing.

The character of growth is indicated upon a scale arranged as follows: Weak, moderate, moderately vigorous, vigorous, very vigorous; "robust" indicates sturdy and bushy, but short growth. Climbers are described either as vigorous climbers, suitable for low pillar or trellis, or very vigorous, suitable for archways, pergolas, or high trellises.

TERMS USED TO DESCRIBE APPROPRIATE USES

(Also key to descriptions on pages 101 to 119)

GARDEN.—Recommended for general lawn or garden cultivation.

BEDDING, i.e., free-flowering and of rather compact growth.—Good for massing in beds, either several of a kind or with other bedding roses.

PILLAR.—Excellent for training up to a low pillar, stake, or post.



A fence made beautiful with Wichuraiana roses



MME. BUTTERFLY is a most favored daughter of Ophelia, and even more richly blessed with charms of color, form, and fragrance; an equally free bloomer.

ARCH.—For covering an archway.

PERGOLA.—For growing over a pergola.

WALL.—Suitable for training up the face of a wall or side of a building.

CREEPING.—Good for covering a bank, stumps, rocks, etc.

TRELLIS.—Grows well on a trellis or support.

BUSH.—Does well when planted alone and allowed to develop.

POT, or CUT-FLOWERS.—Those that have particularly long stems and other qualities that make them peculiarly fitted for cutting. Good also under glass.

BOUTONNIERE.—Well-formed buds and not so large but that it is appropriate for a buttonhole or corsage bouquet.

EDGING.—Makes an excellent edging to a rose-bed or border, bed or pathway.

HEDGE.—Upright and bushy. Adapted for making a hedge, either all one kind or with others.

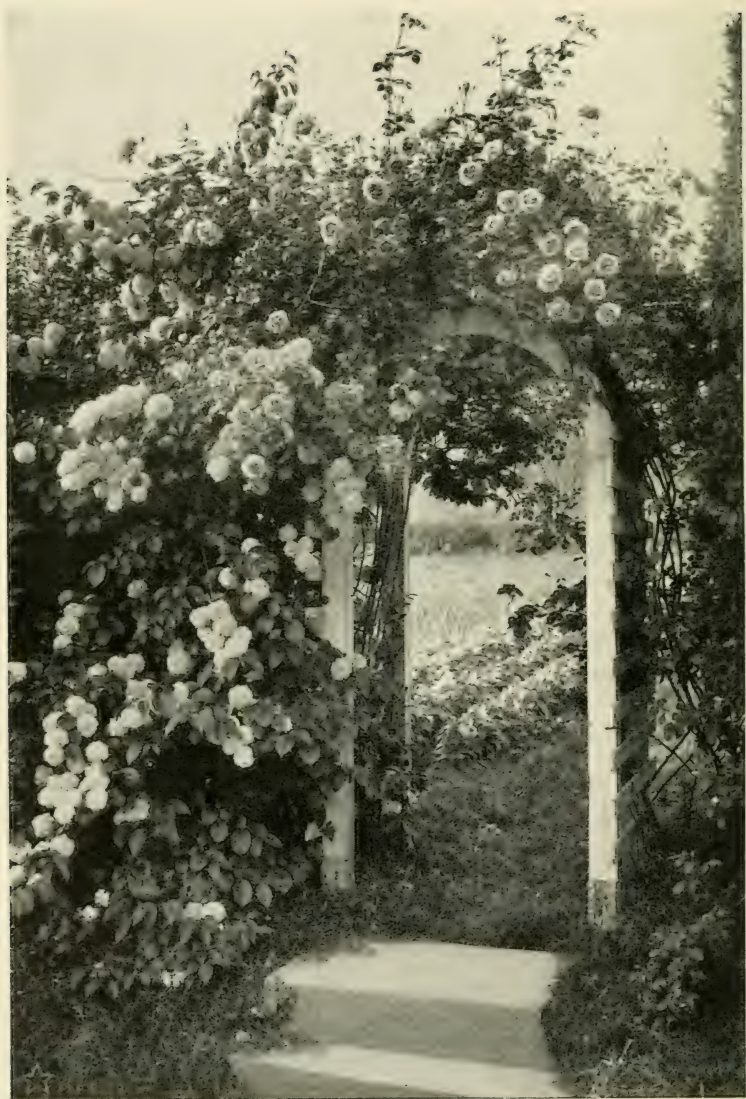
TREE or STANDARD.—Kinds that will do well in tree form, as illustrated on pages 22 and 50.

We feel that entire dependence may be placed upon these recommendations based upon the information gained after many's years' correspondence with patrons in all parts of the United States.

In a broader way the reader will surely find great interest in cultivating a more intimate acquaintance with the great rose family. Opportunity for further study of this subject is offered in the outline of different classes and Analysis of Species beginning on pages 168 and 173 respectively. Appendices C and D.

Beginning on page 121 will be found recommendations of the varieties that eminent amateurs or professionals have found best adapted to each of ten different typical sections of our country.

But comparatively few people can actually plant more than a small proportion of any such extended list, and therefore we list on the pages immediately following shorter lists of the leading varieties for general use and for special purposes. The reader may still have some failures, but they will serve as stepping-stones of knowledge surely learned on which to build greater success.



A flower-framed vista of the Garden Bountiful as seen from
the Garden Beautiful

CHAPTER IV

UNIVERSAL FAVORITES AND SPECIAL-PURPOSE VARIETIES

"Of all flowers, methinks the rose is best."

—BEAUMONT and FLETCHER

THE American Rose Society, through its regularly constituted officers, in rose-time, 1922, sent out to every member a questionnaire calling for a vote as to the ten most popular bush, and the ten most popular climbing roses, 426 members responding. The answers were distributed as follows:

From the New England States	61
Middle States	158
Central States	89
Western States	54
Southern States	50
Foreign Countries	14

There follow the names of the twelve winning roses in each class, together with the number of votes received by each:

BUSH ROSES (all Hybrid Teas, except the second which is a Hybrid Perpetual):

Ophelia	202
Frau Karl Druschki	183
Radiance	163
Los Angeles	114
Mrs. Aaron Ward	108
Gruss an Teplitz	107
Duchess of Wellington	103
Mme. Edouard Herriott	82
Kaiserin Auguste Victoria	75
Columbia	74
Killarney	74
Sunburst	70

In like manner the twelve winning CLIMBING ROSES are also here arranged in order, with the most popular first, and a record of the number of votes received by each:

Dr. W. Van Fleet	262	Tausendschön	100
Silver Moon	197	Excelsa	68
American Pillar	174	Gardenia	50
Dorothy Perkins	122	Christine Wright	46
Paul's Scarlet Climber	107	Hiawatha	38
Climbing American Beauty	106	Aviateur Bleriot	23

A regional separation of the result of this vote (see page 176) shows that certain roses are not without honor in every section of our country, Ophelia and Frau Karl Druschki holding a position of distinction in every case, and four others being noted as among the choice twelve in every group but one among the bush roses.

Among the Climbers there is found even less variation of choice. When we compare the vote from each section of the country we find that seven roses out of each twelve are identical in each set.

That looks as though it were less important to have special roses for each locality than to have the choicest roses in every locality. Furthermore, we know not how broad was the range of varieties from which the above were chosen.

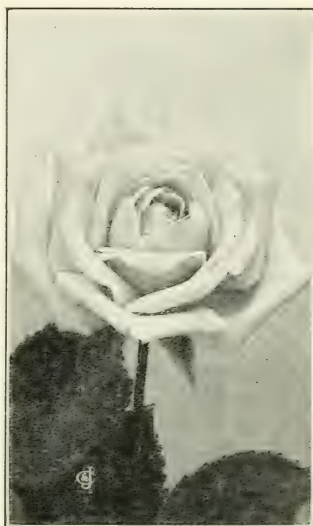
NOTE.—We are indebted to J. Horace McFarland, Editor for the American Rose Society, for compilation of the valuable report on page 176, which also appears in the 1923 "American Rose Annual."



Of course she admires them and also helps to care for them



Columbia



Radiance

Among amateurs happily there are those who have wide opportunities for observation, coupled with practiced discrimination. A special effort has been made to secure the judgment of such superamateurs widely separated. Therefore it becomes worth our while to look at another summary showing the twelve roses chosen by experts as representing potential satisfaction to amateurs. The following twelve varieties in the order named take the leading places in the lists recommended (see page 121) for the vicinities of Boston, New York, Syracuse, Philadelphia, Washington, Indianapolis, St. Louis, Chicago, Minneapolis, Seattle, and Portland, Ore.

Named by all eleven experts:
 Frau Karl Druschki

Named by only nine experts:
 Duchess of Wellington
 Mrs. Aaron Ward

Named by only eight experts:
 Radiance
 General MacArthur
 Lady Alice Stanley
 Ophelia

Named by only seven experts:
 Lady Ashtown
 Laurent Carle
 Ulrich Brunner

Named by only six experts:
 George Arends
 Red Radiance



Duchess of Wellington



Los Angeles



Ophelia

Another guide is to be found by a study of the leading American rose catalogues. Commercial rose-growers are bound to be well acquainted with what they grow, and constantly have their ear to the ground to learn what will sell. The amateur in reality makes the choice, but is influenced, nevertheless, by what is offered. For a dozen years the author has kept track of this, and here is a typical example of the situation. Out of about 1,100 varieties offered by eleven leading American rose firms, we find only twelve roses in every one of those eleven catalogues. Here they are:

American Pillar
Columbia
Frau Karl Druschki
Jonkheer J. L. Mock
Los Angeles
Mme. Caroline Testout

Mrs. Aaron Ward
Mrs. John Laing
Ophelia
Paul Neyron
Radiance
Red Radiance

Thus there were listed the above:

12 roses by all 11 firms
15 other roses by only 10 firms
12 yet other roses by only 9 firms
18 yet other roses by only 8 firms
22 yet other roses by only 7 firms
32 yet other roses by only 6 firms

or a total of only 111 roses, out of 1,100 represented, upon which at least six of the eleven firms were able to agree as roses likely to be in leading demand. Lack of space alone forbids including here the complete list.



Miss Helen Gould could afford a garden like this

We now have before us (1) the twelve roses receiving the highest number of votes from the answering members of the American Rose Society; (2) the twelve receiving the highest number of votes by leading rose experts in ten widely separate sections of the country; and (3) the twelve receiving the unanimous vote of America's leading rose catalogue makers—with the result that only four roses are found on each one of the above three summarized ballots. So judged, these varieties come nearest being, up to date, universal favorites in America. They are:

Frau Karl Druschki
Mrs. Aaron Ward

Ophelia
Radiance

The four named are not the most spectacular sorts, and probably if you were showing a visitor through your garden, might not attract the most attention. But one undoubted reason why these four excellent roses find their way to the top of the heap after so much sifting is because they can be counted upon to perform abundantly and pleasingly under the greatest variety of conditions.



Dorothy Perkins roses, not in California, but in New England, growing over a cottage at Dreamwold, Massachusetts

Climbing Roses That Will Cover Quickly, Trellises, Porches, Buildings, Etc.

Every home has room for a few Climbers, because vines around a house decorate it as nothing else does, and to have vines that will hand you forth roses—imagine the pleasure of that!

Where you live makes a difference; roses that will grow to cover your house with bloom in northern New England may not be the most suitable kinds to do the same in the Sunny South. So, think of these things when you order, or, better still, leave it all to your grower, who, if he be the dependable sort, will select to suit your home and climate. For example, here are three sets, each one good for the section indicated. Order accordingly, and you will get pleasing results.



SILVER MOON (white) and AMERICAN PILLAR (pink) are both outstanding expressions of the art of that great hybridizer, Dr. W. Van Fleet. They are hardy, vigorous, if not rampant growers, and the latter especially comes to be almost robed in roses. Silver Moon here shown is about one-half natural size; American Pillar perhaps one-tenth natural size.

We recommend the following roses for the uses described on page 44:

For a Warm Climate—Everblooming Climbers

Climbing American Beauty. Red.	Maréchal Niel. Yellow.
Mrs. Robert Peary. White.	Climbing Lady Ashtown. Pink.

For a Temperate Climate (latitude of Pennsylvania)

American Pillar.	Mrs. Robert Peary. White.
Climbing American Beauty. Red.	Paul's Scarlet Climber.
Climbing Lady Ashtown. Pink.	Ruby Queen. Red.
Dorothy Perkins. Pink.	Silver Moon. White.
Dr. W. Van Fleet. Pink.	Tausendschön. Pink and white.
Gardenia. Yellow.	

For a Cold Climate (where winters are long and severe)

American Pillar.	Silver Moon. White.
Dr. W. Van Fleet. Pink.	Tausendschön. Pink and white.
Ruby Queen. Red.	

For Screen Planting and Borders, or for Beautifying the Unsightly

Almost every lawn might be improved if some uncomely object or portion in the rear were screened from view. The right kind of roses will do it, and give you something beautiful instead. There are two methods: (1) Put up a trellis and train over it the roses named in the above section; or (2), if a low screen is desired, you need only to plant the tall, erect-growing *Rugosa* roses. And if you want a luxuriant growth, dig the ground deeply and give these roses plenty of rich nourishment.

Birdie Blye. Pink.	Hugonis. Yellow.
Conrad F. Meyer. Silvery pink.	May Queen. Pink.
Christine Wright. Pink.	Ruby Queen. Ruby-red.
Harison's Yellow.	Sir Thomas Lipton. White.

These eight varieties, if set in one group, should be placed at least 2 to 3 feet apart.

Wonderfully pleasing effects may be obtained for screening out undesirable objects or views by the erection of trellis formations. These may be made of various designs and materials, but, for roses, wood seems to be preferred. Over these train the roses recommended above.



Lady Gay clambering over the roadside wall

For Beautifying the Unsightly, Such as Banks, Stumps, Etc.

The Wichuraianas are ideal cover-roses. They are remarkably free from both insects and disease, with foliage clean, bright, and shiny nearly the entire year.

The single-flowered sorts bear bright berries which the birds like. Enterprising railroad companies use these to hold embankments in place. They also add to the roadside beauty; one plant will easily cover 6 square feet of ground.

Alberic Barbier. Shiny foliage; creamy white.

Gardenia (Hardy Maréchal Niel). Yellow.

Universal Favorite (Double Pink Memorial Rose).

*Wichuraiana. Single; white.

*Mrs. M. H. Walsh. Double; white.

Those marked (*) hug the ground most closely. The trailing Rugosa, Max Graf, page 112, is also good for this purpose.

Archways, Arbors, Summer-Houses, Pergolas, and for Beautifying Boundaries, Fences, Etc.

Certain roses lend themselves admirably to being trained over objects on which they can have support. The best kinds for such a purpose, we think, are:

*Dr. W. Van Fleet.

*Silver Moon.

Dorothy Perkins. Pink.

American Pillar. Single; pink.

*Christine Wright.

Excelsa (Red Dorothy Perkins).

Tausendschön. Blush.

Gardenia. Yellow.

*These have heavier and stiffer canes; those not so marked are more pliable and willowy.

Quite as pretty an effect may be had with certain other kinds by allowing them to grow over a fence, as shown on page 132. Their willowy, vine-like branches are very graceful. The foliage is shiny and almost evergreen, giving these the advantage over the Ramblers of being attractive even when not in bloom and almost the entire year.

Albéric Barbier.

Alida Lovett.

Aviateur Bleriot.

Bess Lovett.

Coronation.

Dorothy Perkins. Pink.

Évangéline.

Excelsa.

Gardenia.

Hiawatha.

Prof. C. S. Sargent.

Ruby Queen.

Universal Favorite. Pink.

White Dorothy. White.

Wichmoss.

Wichuraiana, Single. White.

The above-mentioned roses flower during one period of the year only, but are hardier for cold climates than the following, which, if well cared for and properly nourished, will continue to produce some bloom during summer and autumn:

Climbing Clotilde Soupert. Blush.

Climbing Gruss an Teplitz. Red.

Climbing Killarney. Pink.

Climbing Lady Ashtown. Pink.

Climbing Mlle. Cécile Brunner.

Pink.

Climbing Mme. Caroline Testout.

Pink.

Climbing Maman Cochet. Pink.

Climbing Orleans. Red.

Climbing Sunburst. Yellow.

Climbing White Killarney.

Reine Marie Henriette. Red.

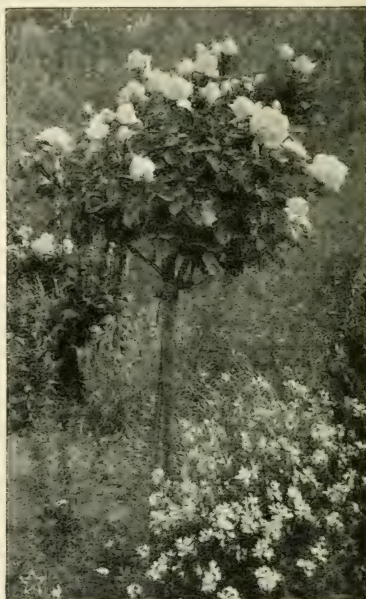
Shower of Gold. Yellow; shiny

foliage.

Bare spaces, whether they be about the house, garden or garage, seem to cry out to those who pass: "This place isn't a home till it's planted."



Tausendschön Pillar



Tree Rose

Pillar and Standard or Tree Roses

We Americans have yet to learn the effective use of climbers trimmed and trained to a stake in Pillar form (see illustration).

Tree roses occupy very little ground-space and are quite imposing when planted among shrubbery or perennials. Arranged along the sides of a walk they produce an avenue effect (see page 22). A fine result is produced by planting them among or back of a collection of bush roses. It pays to buy these and to plant them while yet dormant.

Frau Karl Druschki. (HP.) Snow-white.

Paul Neyron. (HP.) Immense; rich pink.

Ulrich Brunner. (HP.) Crimson-scarlet.

Ophelia. (HT.) Flesh-white shading to yellow.

Radiance. (HT.) Carmine-pink.

Duchess of Wellington. (HT.) Saffron-yellow.

Gruss an Teplitz. (HT.) Often called the "reddest of red roses;" fragrant and free-blooming.

Mme. Caroline Testout. (HT.) Clear cherry-red.

Mrs. Aaron Ward. (HT.) Rich yellow.

Rose Hedges

These boundary markers are certainly coming to be more and more popular as people learn of the splendid qualities of the Rugosas, Sweetbriars, or *Spinosissima altaica* for this purpose. They are not neat, compact, and uniform in growth as is a hedge of California privet, but the thick, bushy mass of glossy, crinkled foliage, especially of the Rugosa, gives a particularly fine appearance. Among the best for this purpose are F. J. Grootendorst, Conrad F. Meyer, and Sir Thomas Lipton. They are perfectly hardy in the coldest winters and are extremely valuable because the foliage is not likely to be troubled with either insects or disease.

In warmer countries, or even in our own latitude, a single row of a free-flowering, erect, bushy rose is sure to be pretty and very satisfactory where one wishes simply to mark a boundary, as, for example, between the vegetable- and flower-garden. For this purpose, Gruss an Aachen, Greta K Luis, Marie Pavic, Mrs. W. H. Cutbush, Triomphe Orleanais, or Yvonne Rabier are all good. (See other Polyanthas on page 170.)



Roses where everyone may enjoy them (Portland, Ore.)

Roses for the Cemetery

"Scatter upon me rose leaves."

—WILLIAM WETMORE STOREY

For some cemeteries we recommend roses that almost care for themselves—the Wichuraiana type. They creep like ivy and make a mat of shiny foliage which is green for eleven months.

Next to these, we like the dwarf, compact-growing, free-flowering Polyanthas, especially the White Baby Rambler, Gruss an Aachen, Marie Pavic, and Echo. If you can care for bush roses, select from the "Universal Favorites" and special-purpose sets, page 39, according to locality. If you want some of the sturdiest growers obtainable, choose from this list:

Sir Thomas Lipton. (H. Rug.) White. Mme. Plantier. White.
Frau Karl Druschki. (HP.) White.

Single Roses

These are an interesting group in themselves and represented in various classes. The single Irish roses are best among the Hybrid Teas.

Irish Elegance (see cut).
Irish Brightness.
Irish Fireflame.

The species roses are most interesting, and among the best of them are Xanthina, Hugonis, Spinosisima altaica, Humulus, Moyesii, and Watsonii.

For Edging Beds

Polyanthas now offer an assortment in nearly every color-class (page 170).



CHAPTER V

PREPARING TO GROW ROSES, OR LAYING THE FOUNDATION

"The rose is sweetest wash'd with morning dew."

—SIR WALTER SCOTT

HAVING chosen the location and decided upon the size and shape of your beds, you are next ready to prepare the soil. Rev. F. Page-Roberts, an ex-president of the National Rose Society of England, has said: "After years of rose-growing in places far apart, I think it is not so much the soil and the climate, as the *care and skill of the cultivator* that wins success."

A very successful grower of roses in New York state once remarked to a meeting of his rose society: "I would rather plant a 15-cent rose in a 50-cent hole than plant a 50-cent rose in a 15-cent hole." He was wise. The author recalls visiting a successful private rose-garden in New England one day when the roses in one bed were being moved. Those roses had well-developed roots 3 feet long, because the bed in which they were growing had been prepared to that depth, and the top-growth and bloom had been luxuriantly magnificent, testifying to the value of deep and thorough soil-preparation.

When Noah laid the keel for the ark, the placing of those foundation timbers was relatively not more important than is laying the foundation for future years of rose-growing, for those periods—not only of flood but also of drought—through which your roses must pass and later come up smiling.

Now ample drainage is one thing that must be provided, if you are to court success. "Wet feet" are no more conducive to health and happiness for roses than for children. Examine your soil; if there seems a need, provide drainage. Remove the soil from your bed to the very bottom. Place there a layer from 4 to 6 inches deep of stones not larger than your fist, broken bricks, clinkers, or other suitable material that will readily "take" the water from above. The soil is seldom so retentive as to require tiling to take the water away and, indeed, nine times out of ten no artificial drainage at all will be needed.

As to soils, the good loam so often found directly beneath the sod is excellent, but is greatly improved by being broken, even pulverized, to a depth of at least two spades and thoroughly mixed with about one-third its bulk of rotted manure. Fresh manure must never be allowed to touch the rose roots. Indeed, the more thoroughgoing way is to make sure of the nether layer of soil by removing the upper one. First of all, peel off the sod (it will produce excellent compost; see section on "Fertilizers" that concludes this chapter); next take out the top layer of soil to the depth of 1 foot and pile it nearby. If the soil below that is good, rich loam, or a fair mixture of clay and loam, it may remain. Loosen this with a garden fork to a depth of another foot, preferably not upturning it, and mix with it well-decomposed manure, and then put back the top layer of loam in which to plant your roses.

If, on the other hand, you find the subsoil poor, barren, and unproductive, you may have to remove it altogether. Haul it away and put your chopped-up sods in the bottom, grass-side down, to rot and make future plant-food. If you have ready from the previous year a compost made by mixing one-half or two-thirds of sod with the balance of manure from the cow-stables, use it in the bottom of your bed, and thus insure a future storehouse of rich nourishment for your roses.

Another hint: A few broken bones may be mixed with the soil in the bottom of the trench, say a peck for a bed holding a dozen roses. These will decay slowly and furnish plant-food for three or four years to come.

Not all roses like the same soils. The Hybrid Perpetuals, for example, love a heavy clay or loam; so do the heavier-growing climbers; whereas the Teas, Hybrid Teas, Bourbons and the like, revel in a lighter soil and a warmer one, with less than 50 per cent clay or loam, and more sand or leaf-mold. Rugosas thrive even in quite sandy soil.

It is difficult to give the roses too rich soil. If your soil is light and sandy, and you cannot well replace it entirely, it may be greatly improved by mixing a little clay or rich loam with it when trenching. If your soil seems too heavy, it can be made lighter and more open by adding sand, or even coal-ashes. To be good for roses, the soil must be such as will not



For splendor, beauty and impressiveness the red Rose stands preëminent, and among the Hybrid Perpetuals the J. B. CLARK, shown above, is a variety with real merit.

Among the more recent introductions in this class should also be mentioned Hugh Dickson, George Dickson and Gloire de Chedane Guinoisseau.

Can you imagine any flower more exquisitely appropriate, either worn singly or in display for the most important occasions, than a freshly opened bloom like the above?

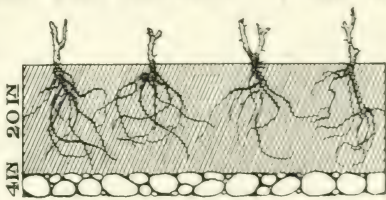
Important celebrations and state occasions are coming more and more to depend upon the Rose for its decorative value, satisfying the mind and heart, as well as the eyes, of all observers.



La France. Beautiful on the lawn; just as fine in vases

quickly transmit to the roots sudden surface changes of temperature. The roots should be kept cool. If it be possible, after the soil in your bed has been prepared, give it time, say two to three months, to settle before planting your roses. If this be out of the question, press with your feet each layer of soil in your bed, as you proceed to fill it in.

The subject of fertilizers is important. While manure from the cow-stable is best, you can draw upon the horse-stable, sheep-pens, or pig-sty with expectation of good results, and "night soil," mixed with dry soil, or sand, and well composted is excellent. Chicken manure may be used with caution. Well-rotted leaves are fair, but too light except for heavy soils. Commercial fertilizers, such as ground bone or guano, may be used to advantage if handled with discretion. A rule to remember is never to let any "green" or "raw" manure come close to the roots of your roses, but see that it is buried well beneath the root reach, or applied as a top-dressing. After your roses have been planted, the best time to apply



Layers of stones like this are not essential if the ground is naturally well drained

manures is just as the ground begins to freeze in the autumn. Let it serve as a protection over winter, and dig it in next spring, being careful, however, not to disturb the roots.

Far better than surface-coating is the ample supply of fertilizer placed well under the roots in the bottom of your beds before you plant your roses, because roots travel toward their food-supply. By thus enticing them downward, you develop a strong, deep root-growth down into the reservoir of stored-up food and moisture, so that, when dry weather comes, they will not hunger and thirst, as they would with only surface roots. Surface application of manure-water is quite a different matter, as that will percolate down to the deepest roots.

It is said that roses draw most upon the soil when blooming, and we find we can almost see the results from application (when the flower-buds begin swelling) of liquid manure, concocted by catching the drain from the manure-pile, or from one-third of a bushel of manure placed in a bag and soaked in a barrel of water. Apply this as a weak tea, not too strong, but frequently, say twice a week. When it is more convenient, a sprinkling of bone-dust on the surface before a rain will answer the same purpose. Even with the best care, it may prove necessary in some locations, say after six or eight years, to renew the soil or move the bed, adopting the principle of crop rotation.



How pleasant it is to pick a rose for your buttonhole as you walk by

CHAPTER VI

PLANTING

*"I have heard the mavis singing
Its love song to the morn;
I've seen the dewdrop clinging
To the rose just newly born."*

—CHARLES JEFFERYS

"WHEN is the best time for planting roses?" you ask. Tell us *where* you would grow roses, and we will tell you when to plant them. The most carefully laid down dates for New York state are "null and void" in New Orleans. Proper planting-time, even in the same state, may vary according to differences in altitude and latitude. Where the winters are not too severe, as in our Gulf and Pacific Coast States, and on the Atlantic seaboard as far north as Norfolk, autumn-planting is to be preferred.

Indeed, broadly speaking, after a plant has become dormant and its wood fully matured, transplanting may be done whenever the weather is suitable and the soil fit, and the longer time there is for the roots to become well settled in the ground before they must start growth again, the better probably will be that growth. A warning is here needed. Young, weak or tender plants should be planted in the spring in localities where the winters are severe—but Hardy Climbers, Hybrid Perpetuals, Rugosas, Mosses, and the hardiest of the Hybrid Teas may be planted in the autumn, as soon as dormant, as far north as *properly ripened* plants can be obtained before the ground freezes. As a matter of general practice there are, doubtless, ten times as many roses planted in the spring as in the autumn, when few nurseries have more than a limited list of varieties graded and ready for distribution. Wherever you are, dormant roses may be planted as soon in the spring as the soil is dry enough to crumble and not cake in your hand, and as long after that as good dormant plants can be obtained, usually up to the end of April. After that, danger from frost is largely past, and it will have become safe to set out roses grown in pots and in leaf. If you live north of 40 degrees latitude, defer planting from this date by one week for every hundred miles difference.

Do not attempt any planting operations with the ground frozen or the thermometer below 45 degrees Fahrenheit. Roses from pots, when shipped with soil on the roots, may be planted as late as you like, even during the summer. In this, as in others of life's enterprises, they who are forehanded usually reap the richest harvest of bloom.

TREATMENT ON ARRIVAL.—Think of your roses as living creatures, even though they be asleep (dormant) when you first get them. Unwrap them with the greatest care, never expose the roots to the drying action of the spring winds for a moment. A plant with bare roots exposed to the dry air is like a fish out of water. Untie the bundles so as not to break, bark, or bruise either root or branch. Should the plants, through delay in transit, come dried out, as occasionally happens, soak the balls of earth and roots in water; if the stems also have dried out, bury the whole plant in damp earth for three or four days till the shriveled branches regain their natural plumpness. If you cannot plant the roses when they arrive, "heel them in" in the garden until you are ready to plant them. This is done by digging a trench deep enough thoroughly to cover all roots and even lower branches of each bundle of roses. Then spread out and cover the roots with plenty of soil which should be packed, even tramped, so as to leave no air-pockets about the roots.



A lovely spot in the famous Roseraie de l'Hay near Paris

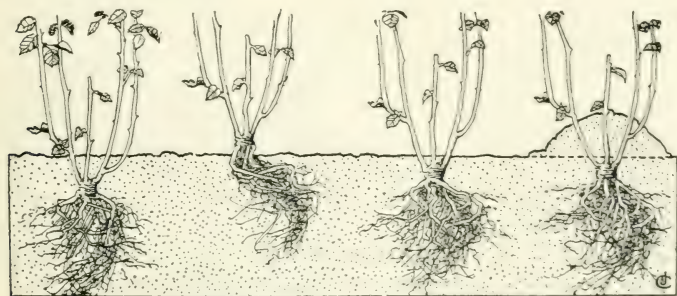


You, too, could not help but admire the Rose DR. W. VAN FLEET if you could thus hold it in your hand. It comes on long stems, just right for cutting, with pointed buds and curling petals, opalescently tinted with deep blushes as though from the sunrise. You'd find satisfaction, too, in the knowledge that the bush is healthy and vigorous, with rich, green, shiny foliage and most generous in habit of bloom. You can reasonably expect a thousand blossoms a year from a plant after a three-year start in your garden.

THE ACTUAL PLANTING.—When ready to plant, remember again that roots must be kept from the wind. Spring winds are so drying that fatal damage may occur from a few minutes of exposure. The best plan, when planting, is to keep the roots covered with a damp piece of burlap, or of other packing material.

Next, make the holes in the bed, which should have been prepared as shown on page 54, and make them large enough to accommodate the roots in a natural and uncramped position, neither too deep nor too shallow (see illustration). Do not spread the roots out flat, but point them down, slanting outward. Use care to keep the roots from direct contact with the manure, lest the roses get indigestion. It is a good plan to dip the roots, before planting, in a thin mud made by mixing loam or clay with water. Settle well-pulverized soil in around the roots, so as to fill up every air-space, and so that every single root shall be entirely encased in soil. When the hole is half filled, and roots covered, press the soil down firmly with the hands; then fill the hole with water and let it drain away; fill in level with soil, and tramp it carefully but securely; give a final covering of soil, which should be about level with the surrounding turf, but not high enough to let the water run away when it rains. Also protect from the bright sunshine for a few days.

The following illustration shows how deep to plant budded roses—own-root plants should be set so that all side branches are well above ground.



Too deep

Too shallow, and
roots wrong

Just right

Right, and banked
for winter

STAKING THE ROSES.—Standard or Tree roses, unless extraordinarily sturdy and planted where they are protected from the winds, will be the better for staking. The stake should come well up to the head of the rose. Place it while planting, for if it is driven later it may injure an important root. Bush roses seldom need staking when planted, although this is a matter for attention according to the needs of individual varieties. Plants should never be permitted to sway about or become loose at the collar. If the sun be warm within the next day or two after you plant, the bush will be the better for being shaded, as well as for mulch about the roots.

LABELING.—Rose-growing with labels is by far the most delightful kind. You lose half the pleasure if you lose the names, to say nothing about the satisfaction of accumulating information. The importance of labeling is really great. Do it when you plant as a part of the operation; otherwise, it is likely to be overlooked. The growers' labels in some cases are not likely to last more than one season, and then it becomes dreadfully embarrassing not to know what to call your plant-children, whether you want to scold or caress them. Choose the label with fewest faults.

Or better still, make a diagram of your bed before you start planting, and on it indicate the relative location of every plant in it. This will prove a great convenience later. (See page 29.)



COPPER LABELS.—These are made of light sheet copper, eyeleted and wired ready to use as soon as the name of the plant is inscribed. The copper labels are very light, and are therefore

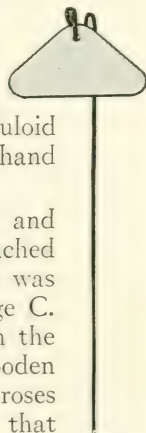
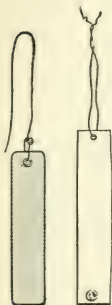
most suitable for hanging on the branches of your roses in a conspicuous place, not to be disturbed until you begin your pruning. Then, if necessary, remove them to some other part of the plant not in danger from your shears. But any type of label that must be wired on the bush may constrict and check the life of the stem or branch on which it hangs. Therefore, a better way to use these copper labels is to suspend them on a stout wire stake alongside the plant, so that no removing will be necessary unless the rose is being transplanted to some other part of your

garden, when, of course, the label should go along with it. This shape of label is now available in celluloid faced with perfectly transparent mica. (See right-hand cut of the two above.)

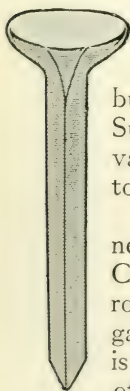
Plain or Printed Wooden Labels, similar in size and shape to the two illustrated above, may be attached to an upright iron stake. This is the scheme that was followed in the noteworthy garden of Capt. George C. Thomas. Furthermore, upon the same stake, with the name label, he would hang a plain wooden label on which to mark the number of roses

harvested throughout the season from that bush, each time one or more roses were cut. Such a plan, faithfully followed, makes an invaluable record for any careful rose-grower on which to base his advice to future purchasers.

The best of wooden labels must be sometimes renewed. A more permanent type we call the "Garden Club" label. It is a triangular piece of flat zinc with rounded corners, hung on the gooseneck top of No. 9 galvanized iron wire, 15 inches long, as above. There is room on the reverse side for date of planting and other data. For indelible ink, dissolve a copper cent in a 1-ounce solution of one part sulphuric acid and



Garden
Club
Label



Mann
Label

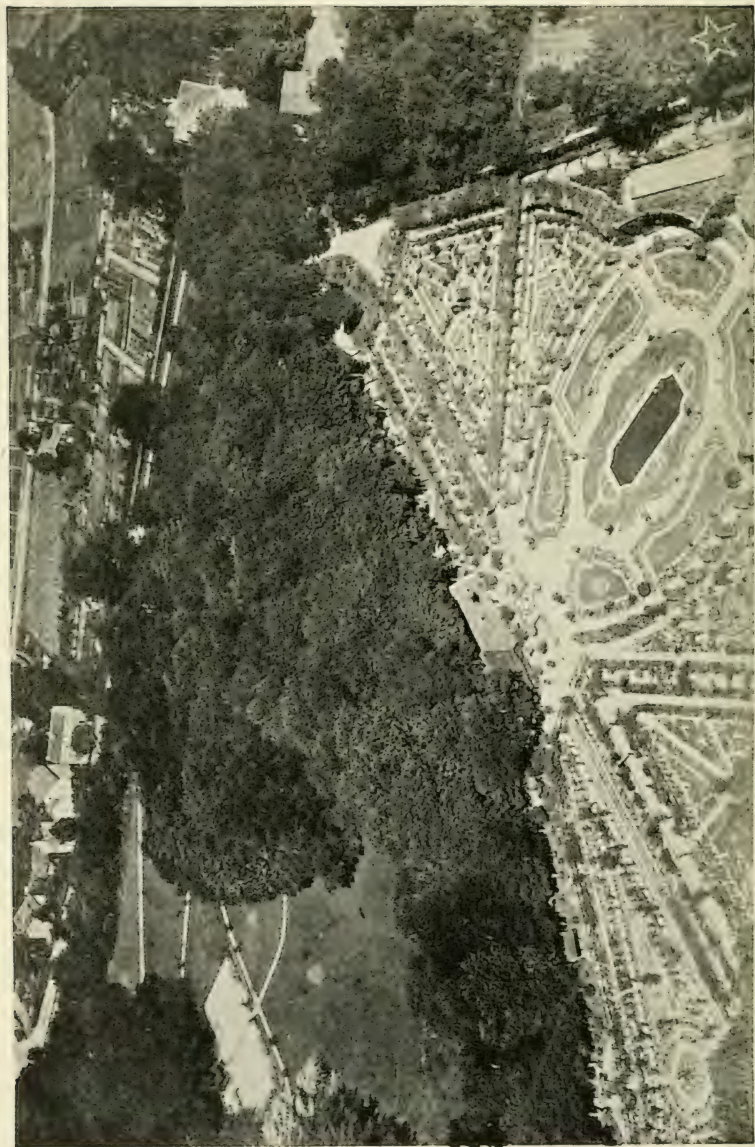


Photo by courtesy of House & Garden
An air-pilot's view of the most wonderful rose-garden in the world: Roseaie de l'Hay. (See page 13.)

five parts water; or, if preferred, paint the label and stake green and the letters in white. This label keeps clean because it is above the mud-splash of the raindrops.

The Mann plant label illustrated on page 65 is of zinc. It is practically indestructible and stays put. The length is $9\frac{1}{2}$ inches and width across the top $3\frac{1}{4}$ inches.

The Simplex label illustrated is a single piece of metal frame and stake 16 inches long, securely holding in place a slightly roughened celluloid card which is protected from the weather by a clear, smooth cover of mica.

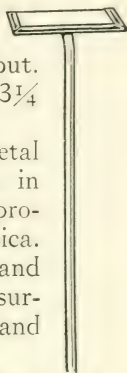
Celluloid labels, with the rose name printed in and clearly showing from beneath a transparent glazed surface, are perhaps the most recent development and promise great satisfaction.

One firm uses one of these labels on every two-year rose it sends out. The shape of it reproduces the firm's "trade-mark," and its signature on the back is its "make good" guarantee. Such a label is evidence of a responsible dealer.

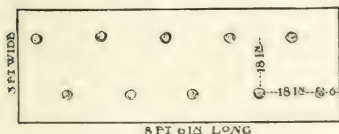
One other type which is neat, compact, and fairly indestructible are the labels made of zinc or sheet metal half an inch wide on which the letters are raised with an embossing machine. Unless one has frequent use for such a machine, it is cheaper to purchase the labels as wanted.

The most élite rose labels we have ever seen are those used by M. Gravereaux, in his wonderful garden at L'Hay, near Paris (see opposite page), where, on top of small, sturdy iron stakes, were bolted beautifully finished, flat-top, oval nameplates of porcelain.

PLOTTING.—But the "best-laid" labels sometimes go wrong, and in some unexplainable fashion do get lost; therefore, to be entirely protected, you can take out label insurance. Some people think this is more important than labeling. Draw a diagram of your bed, and then with letters or numbers indicate on it the location of each rose. With this make out and keep a key-list of roses lettered or numbered to correspond with those on the diagram.



Simplex
Label





In the popular Municipal Rose-Garden, Elizabeth Park,
Hartford, Connecticut

CHAPTER VII

ROSE-TIME

"Sweet spring, full of sweet days and roses."

—GEORGE HERBERT

DOUGLAS JERROLD once described a land of plenty—Australia it was, if memory serves—and he put his compliment to that vast island's fertility into these exuberant words: "Earth is here so kind, that just tickle her with a hoe and she laughs with a harvest."

Upon some such note of released vitality and expectant joy one falls into step with the waning spring and opens the rose-wreathed gate of June. Surely no word has greater content of magic than "Rose-time." It has meant so much to you in anticipation. It will now mean manyfold more in realization. "In spring," as was said in an introductory paragraph, "one can have the pleasure of building air-castles about the plants." Quite; and it was a stimulating pastime, was it not? Those gossamer, dewy structures of imagination you reared were put together with thrills for mortar, weren't they? Indeed, there are not a few people who find anticipation more precious than realization. But we submit that those people never experienced a rose-time all their very own.

For, unquestionably delectable as building air-castles out of rose-bushes is, roses, roses themselves, roses in riotous bloom—ah well, we have also said that no true lover of roses rants. But let us go on record here, that not only does rose-realization transcend the most ecstatic anticipation, but that it erects a concept of beauty and of fulness before which other like gratifications of the senses pale and thin—and pall.

How shall one put this delicate delight into words? How snare an emotion which is as elusive as an elfin wind? If you pile on adjectives you crush the fragile pith; if you stake out verbs the result is a clumsy stockade where only tender traceries should festoon themselves. But, indeed, this is no novel difficulty. For centuries poets and painters have struggled to express themselves in roses, but with only faint success. Rose-time, in brief, though without doubt one of the premier satis-

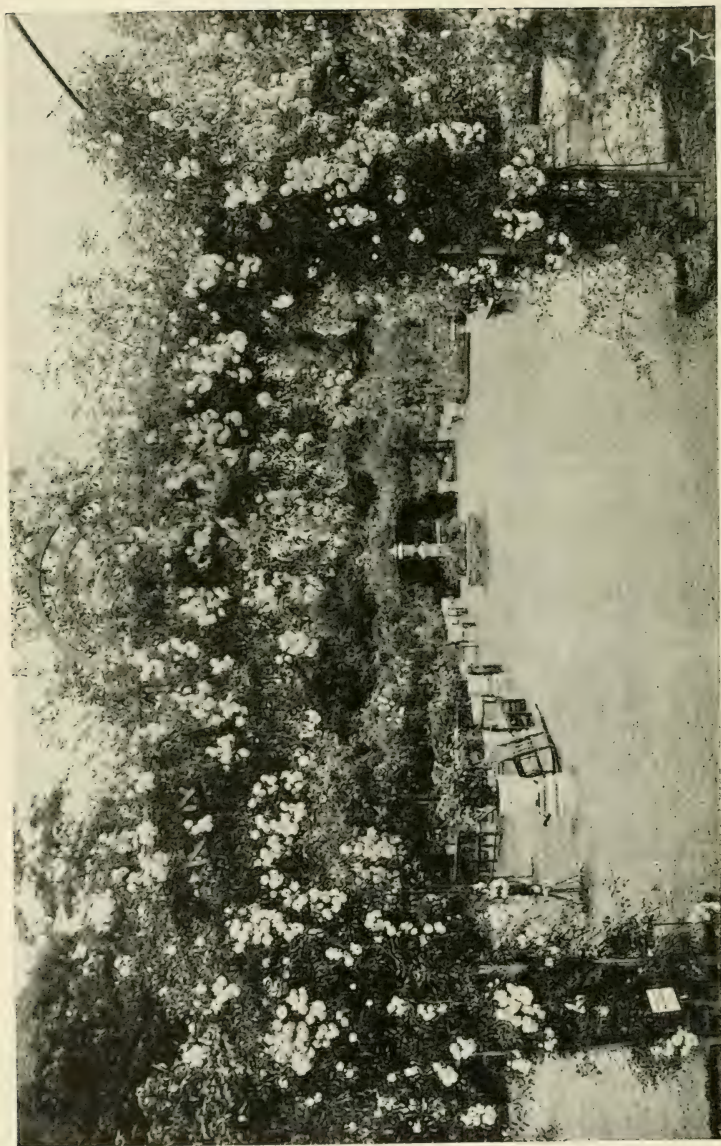


Photo by courtesy of Hense & Garden

Another view in the world-famous Roseraie de l'Hay of M. Jules Graviercaux. (See page 13.)

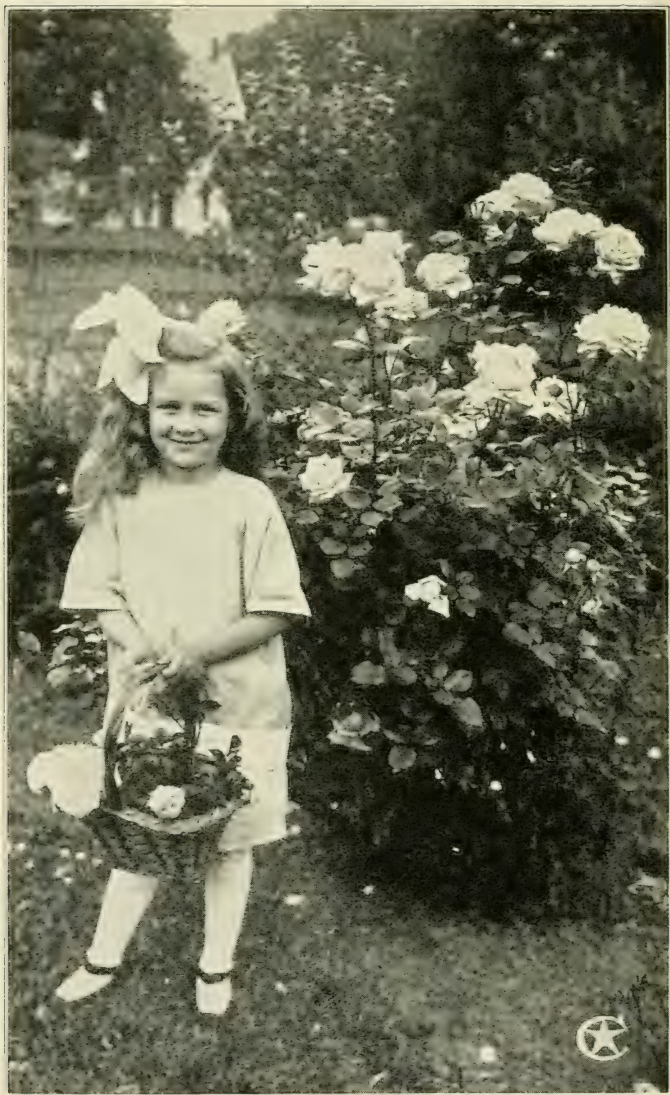
factions of the soul, is one of the least translatable in any known medium of art. Actually it belongs to that category of silent and contemplative pleasures wherein cluster the really rapt moments of life.

Perhaps, however, in the sincere desire to provide some sort of Rose-time transcript for those who have not yet planted rose-dream seed—for those, in short, for whom this book is primarily written—we may be permitted to set down something of what Rose-time means to rose-lovers. It may sound extravagant or even bizarre, and it will certainly be halting and lame and inadequate; but remember, if you please, how many eloquent voices and hands have sought to transcribe the rose, and succeeded only in dropping faded petals upon their pages or their canvas.

Rose-time corresponds with the time when all creation focuses to its best. It is the flower-time of the year. It is the time when all growing things reach a mellow maturity. In effect, the word conveys, as gloriously as it is conveyed by that other word of warmth and fruition and fecundity, the golden word Summer. But there is a larger sense in which the word Rose-time focuses and at the same time becomes the focal point of the best in nature and in life. For may we not go back of the cyclical round of the seasons and make the tentative suggestion that in a very real sense all the ages have contributed to this focal point we call



Effective uses of Hybrid Wichuraianas



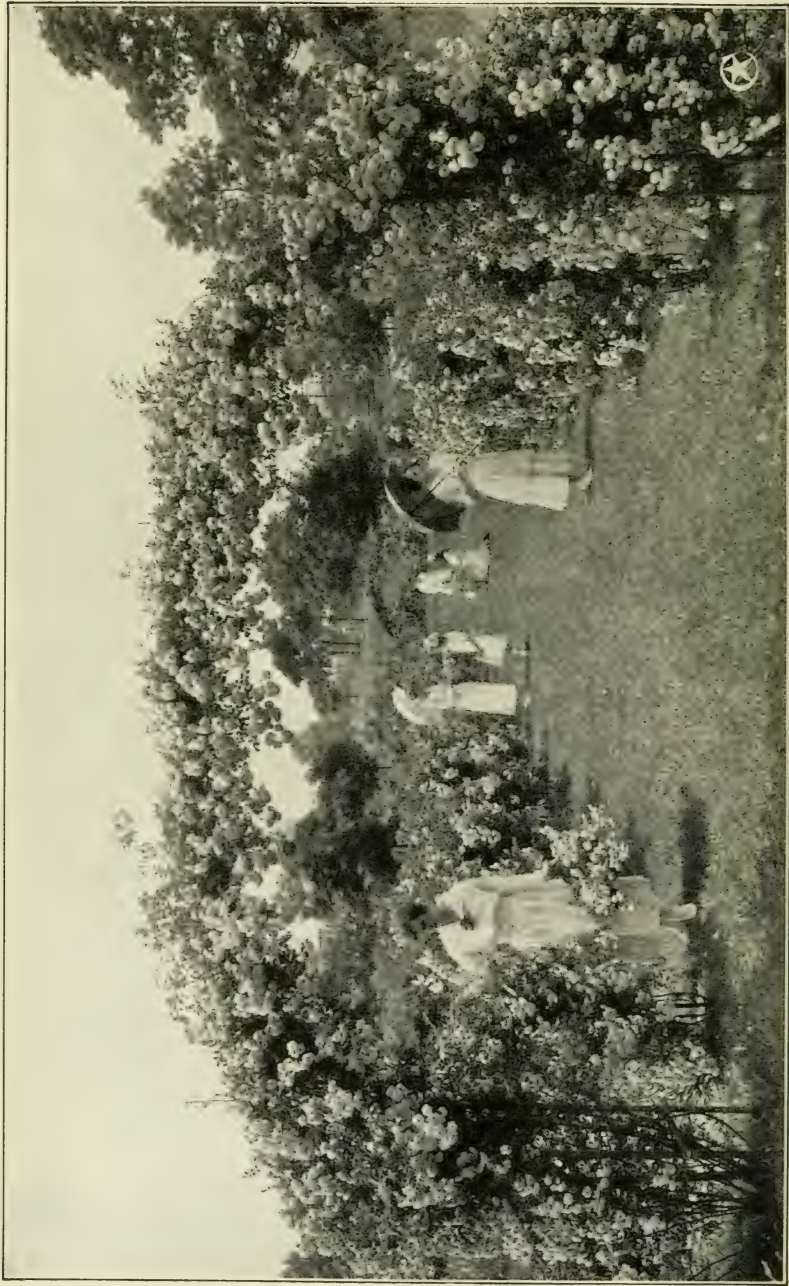
"Beauteous rosebud, young and gay
Blooming in the early May."
—BURNS.

Rose-time? Certainly the burden of proof lies on him who would gainsay such a supposition; and, subjectively, at any rate, we maintain it, exult in it, multiply our transports by it, and do not fear to climb even one notch higher and affirm that Rose-time to the rose-lover represents nature and life—and man as the fusion of both—developed to his highest and noblest level.

But come! Enough of metaphysics! The actual rose-garden is crying to us with vibrant voice. The genial sunshine draws us out of our meditative mood and outdoors with irresistible seductiveness. The soft grass and miniature gravel-paths whisper beneath our feet. Birds leap with indignant chirp from the laden bushes which, without doubt, they believe their very own and almost dispute with us; or, in farther reaches of the garden, gossip and chuckle over the direction our clumsy locomotive facilities are likely to take us. The full blaze of the plants is suspended like a strip of sunset let down to dangle its glammers within a few inches of our eyes. The scents of the place are poignant by reason of their subtlety, rare and precious because of their very incontinence. And in our hearts, snuggling like a confiding child, is that divinest reaction of beauty—Peace.

But the rose-garden calls for ungrudging reciprocity on one's own part. This lavish blooming demands lavish requital. You too must bloom, you too must expand and sing. Dean Hole, the rosarian of beloved memory, once said: "He who would have beautiful roses in his garden must have beautiful roses *in his heart*. He must love them well and always." These roses are yours and they know it, know your moods, commune with you, dance with you, reflect with you. But always their gay zestfulness stimulates; you cannot wilt! Infallibly they hold you to your best self.

For it was, of course, your best self that you planted here; your cleanest aspirations that you so carefully nurtured; your least worldly impulses that you watched sprout, bud, and flower; and it is now your ripest and truest self-expression that pulses and surges about you in these living hearts of beauty. "Grow your own roses," that laconic advice of one of the most distinguished rose-growers of the world, Admiral Aaron Ward—a phrase which might well stand as the text and inspiration



And where could one find a pleasanter spot for the social occasion, the lawn fete, the graduation party?

of this book—these words have now evoked for you a Rose-time inalienably and exquisitely your own.

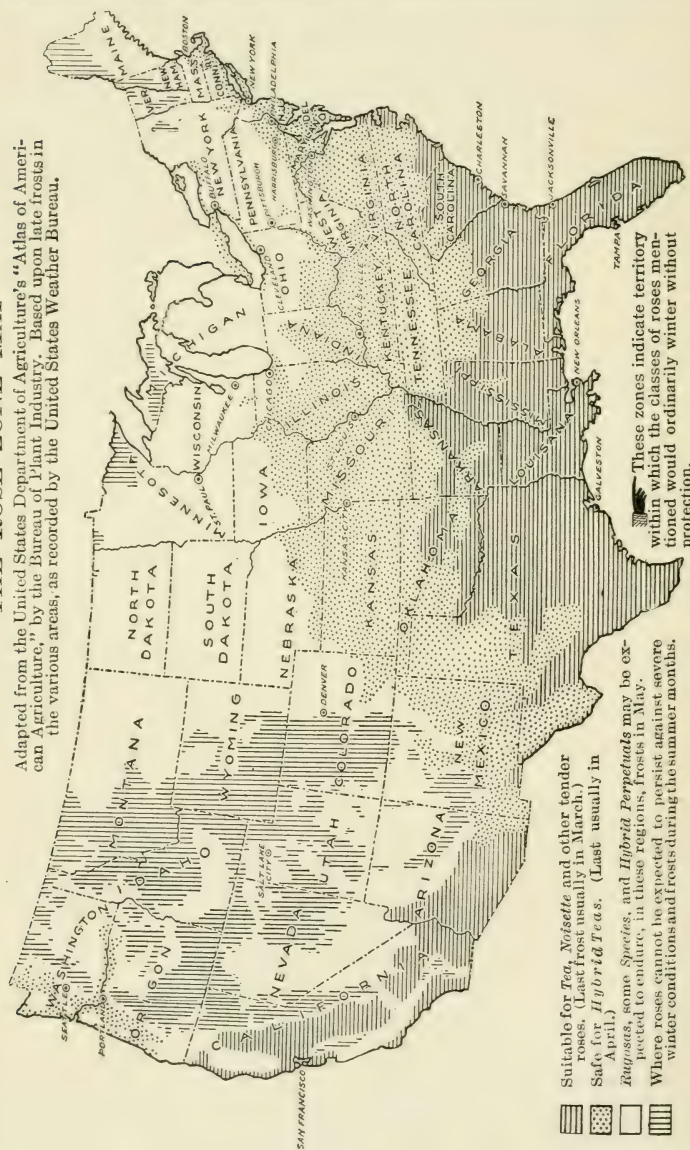
The rose-garden, however, is not merely a place over which selfishly to wax rapturous. It is preëminently a possession to use. Rose-time should make it turgid with the routine concerns of daily life. You must, literally, *people* this garden of yours to get the best out of it and out of the self that you have put in it. What is the ideal rose-garden? Why, the one where children's voices form a counterpoint to the pure chorale of the flowers! A father's heart can beat no higher than when he hears his children's laughter throbbing between the stalks whereon their little petaled brothers and sisters nod quaintly to the music. That's symphony, if you like!

Give your neighbors the "keys" to your garden. No gift of a city's keys can match this gift. And where could one find a pleasanter spot for the social occasion, the lawn fete, the graduation party, the little kiddies' "small and earlies"? The rose-garden is the place of all places for social foregatherings of every sort. Let your garden be actually your outdoor living-room. Receive your guests here. Serve tea or ices in some quirk or nook of these little, winding, verdurous paths. Enjoy it. Use it. Open it to all your world.

And consider the intimate delights of your own and your family's shifting contacts with it! You will not fail, occasionally, to visit it at 5 o'clock in the morning and watch the rising sun pluck off its counterpane of dew. After breakfast your wife will, perhaps, saunter through it wistfully and dreamily, or, armed with shears, transfer some unreluctant blossoms to a sphere of fragrance in the house. After school, the children will invade it; and at twilight and in the early evening the father will reassemble all his family, roses included, and will breathe perhaps a silent pæan of thanksgiving for Rose-time; or, it may be, out of the surcharged fulness of his heart, a tiny prayer for those who have no rose-children.

THE ROSE-ZONE MAP

Adapted from the United States Department of Agriculture's "Atlas of American Agriculture," by the Bureau of Plant Industry. Based upon late frosts in the various areas, as recorded by the United States Weather Bureau.



The ROSE-ZONE MAP, as Prepared by the U. S. Department of Agriculture
Reprinted by permission from the "American Rose Annual" for 1920

CHAPTER VIII

PROTECTING THE ROSES

*" . . . the summer rose
That opens to the morning sky."*

—RICHARD HENRY WILDE

MULCHING.—There is a treble object in this: First, to retain the moisture; second, better to preserve a suitable temperature in the soil; third, to stop weed-growth. What is called a "dust-mulch," maintained by frequent hoeing, is, perhaps, the best method, although, where the summers are warm, a covering in early July of long, "strawy," cow-, pig-, or horse-stable manure that will not heat, will accomplish the same object. The lighter and more chaff-like portion should be removed in the spring and the richer part dug in. Peat-moss we look upon as even better than a manure-mulch, because the latter may encourage root-growth nearer the surface than is desirable. We have also tried sawdust for covering the beds in summer. It certainly prevented need for weeding and otherwise seemed beneficial. Another plan is to plant some low-growing and shallow-rooting ground-cover plant, like violas (pansies) or portulacas. These grow quickly from seed and should be established by mid-July. A good friend of mine in Santa Barbara, Calif., finds satisfaction with violets, though to my mind any other plants than roses in the rose-bed seem to me to smack of an apology for inability to keep one's roses fully furnished with healthy foliage.

PROTECTING FROM FROST.—In northern Illinois, W. C. Egan, the eminent horticulturist, succeeds admirably in keeping his roses over winter, as does also the superintendent of the McCormick estate; and yet, north of Chicago, where they live, the severe winters and the cold winds blowing over Lake Michigan often kill the Wichuraianas and Rambler roses to within a foot of the ground, when not protected. An eminent judge, living north of Detroit, by the work of his own hands, protects his Hybrid Teas so that they triumphantly weather zero winters. On the famous shore-front at Newport, R. I., we found the tender Gloire de Dijon rose, which we had supposed could not be grown north of Washington, D. C., green and thrifty to the



Roses ready for winter with overcoats of straw, really second-hand bottle covers. Excellent protection (see page 83)

second story, after a most severe winter season. But the protection had been very thorough.

Obviously, there is no danger where there is no frost. Where the thermometer falls below freezing, the less hardy varieties should be partly covered, and all roses will be the better for some protection, at least about the roots. If you are visited with zero weather, let "*preparedness*" be your rule. To begin with, bank up the soil cone-shaped, with the apex 6 to 10 inches high around the stem of each bush. Ashes are sometimes used, but we know of nothing that is better than soil. In very cold countries, the roses may be lifted entirely and buried in trenches for the winter, and they will come out in fine shape for replanting in spring. After you have drawn the soil nicely around them (see calendar), leave them alone till the ground is frozen with a crust hard enough to bear the weight of a stone-laden wheelbarrow. By this time the moles and mice, or other creatures, will have secured their winter abodes elsewhere, and not be tempted to make nests in the protecting material you will next apply. Now do not smother your roses, or they may die. Cover them thoroughly, as high up as you attempt to protect them, but always allow for the circulation of air. A 3- or 4-inch blanket of good, heavy stable-manure will keep out much cold.

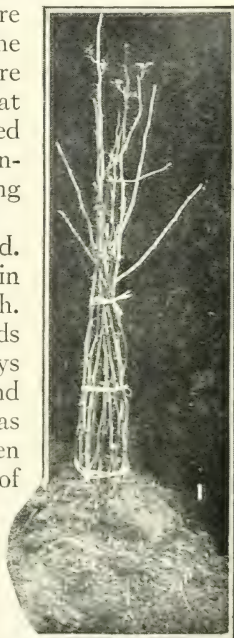
TAUSENDSCHON, or Thousand Beauties, is the appropriate name of this lovely, vigorous and desirable Hardy Climbing Rose; almost thornless.



Over this fill up from the bottom of the bed to a depth of 10 to 12 inches with nice, dry leaves, and with some light material on top to keep them in place. A 12-inch fence of poultry-wire staked round the bed will help keep the leaves in place. The boughs of fir or pine trees, hay, straw, or corn-fodder, or other material that will break the force of cold, biting winds, will serve in place of leaves, and where most careful protection is required, boards may be arranged, roof-fashion, to turn off the rains. This will also protect your roses from exposure to direct sunshine when nights are freezing cold, and prevent alternate thawing and freezing, which is dangerous, and in early spring prevent the premature excitation of plant-growth and tender buds. For this reason, too, remove protection in spring gradually, and not all at one time (see calendar, page 164).

The Municipal Rose-Garden in Luna Park, Minneapolis (see page 165), is good evidence of how successfully roses may be carried through the most severe winters. The accompanying pictures tell the story of the methods followed. Theodore Wirth, the able superintendent of that splendid park system, who kindly furnished the photographs here reproduced, calls attention to certain important points in preparing for proper winter protection.

"We took special pains to ripen the wood. We stopped watering and cultivation in September and discouraged late growth. The last week in October we gave the beds a very thorough soaking, and a few days after we tied the shoots close together and piled the soil around the plants as high as we could with material taken from between the plants, so covering from four to six of the lower eyes. The garden was then left in this condition until there were 3 to 4 inches of frost in the ground. We then filled in with dry leaves, gathered from the near-by woods. The leaves were thrown in loose and not packed down, and

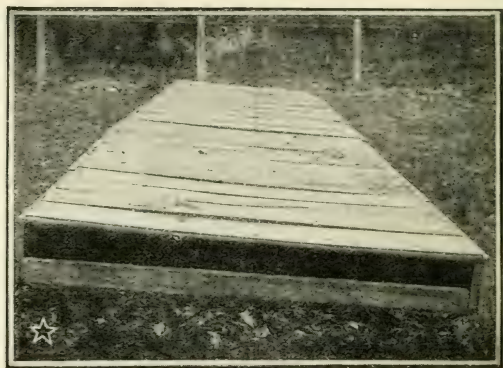


1. Tied and mounded up



2. Board sides to hold the leaves in place and to support the boards to be placed across the top. (See 3.)

3. NOTE.—Both ends are left open for the free circulation of the air.



covered the beds to the height of the soil heaped around the plant (Fig. 2). We then boarded in the long sides of the beds 2 feet high, and boarded over the top of the bed, but left the two ends open (Fig. 3). Over this board cover we spread a layer of bedding, straw, and hay (Fig. 4)."

Here again we see demonstrated three important points: (1) Cover and protect from the sunshine to prevent thawing after frost has set in; (2) protect from the drying effects of strong winds; (3) do not prevent the free circulation of air. Remember that any sudden change in temperature carries the greatest danger, and usually the most violent changes occur just as winter is turning to spring.



A snug covering of hay or straw over everything

PROTECTING TREE ROSES is most important. Pampas grass or eulalia or rye straw may be tied round the stems an inch thick, but the top and union of stem and top are the critical points. The branches, if pruned back a bit and tied up, leave a convenient shape to encase in material that will turn sun, wind, rain, snow, and ice. Try patent waterproof wrapping-paper for this. In severe climates roses are sometimes taken up and buried bodily in a trench in the vegetable-garden and then replaced in the spring.

The home of a friend of mine (J. H. Nicolas of Indianapolis) has been nicknamed "Chateau de Champagne" because of the winter appearance of his lawn. You see, he has devised a most convenient method of winter protection for his bush roses. He first cuts back the tops as required, and then ties the branches up to an erect position, after which the straw covers off champagne bottles, slit down one side, may be easily made to cover them. Sometimes two are required for each bush. In justice to Mr. Nicolas, and as additional evidence that rose lovers are law-abiding citizens, let us hasten to add that Mr. Nicolas imported directly from France an entire bale of *empty* bottle covers. How neatly and almost "at attention" they appear in use and how effectively they perform their function, of adequate protection without risk of smothering, may be readily judged from the picture on page 78.

BANISHING BUGS

FIGHTING INSECT ENEMIES.—Eternal vigilance is the price of perfect flowers, because "prevention is better than cure." Vigorous, healthy plants are seldom troubled much.

The two golden rules to remember, says Edward Mawley, one-time President of the National Rose Society of England, are these: "Keep sharp watch out for the first appearance of insect or fungoid pests and adopt measures for destruction at once. Then persevere with the remedy adopted until a cure has been effected."

Our Lady Rosa likes cleanliness above all things, and will respond generously to these attentions. Keep your roses clean and healthy and that will go a long way toward making them vigorous and happy. The beginners need not be dismayed at the array of troubles that may happen; if they do, these hints are offered as a "first aid." As a matter of fact, not all the pests are likely to appear in the same garden. Rose-growing is not so complicated or difficult as might appear.

Among the insect enemies to the rose, about the earliest to appear is the rose aphid, which can easily be controlled by an application of "Black-Leaf 40" or whale-oil soap in solution, applied with a sprayer, and the sooner the better.

There follow the rose slugs, including the American rose slug, bristly slug, and the coiled slug, so called, all of which can be overcome by the use of a solution of 1 ounce of arsenate of lead in $1\frac{1}{2}$ gallons of water. The rose-leaf roller may also be treated with the same spray and by hand-picking. The rose-leaf hopper may be controlled with the same treatment as the rose aphid. Perhaps the worst enemy to roses is the rose chafer (or rose beetle or rose bug). Hand-picking these into kerosene is thoroughly effective, but is irksome. The little chap avoids poisons. You may ensnare him by adding some glucose or molasses to arsenate of lead, to make it stick to the foliage and to make it more tempting to him. There are on the market commercial preparations also claimed to cure, but none of these have we found to be thoroughly effective. It is even worth while covering very valuable plants while blooming with mosquito netting.



BABY DOLL, also called TIP-TOP, is a Tea-Polyantha, as piquant and fascinating as its names imply. Its petite buds open to reveal a variety of tints in pink, white, yellow, and orange.

MISS EDITH CAVELL is of the Baby Rambler type and one of the best in the reds, both as to color and bloom.

The following control or treatment may be effectively used in the case of practically all these insects, to which might be added the rose curculio, the rose slug caterpillar, Fuller's rose beetle, and the rose-seed chalcis flies.

Methods of Controlling Rose Slugs.—A strong stream of water from the garden hose if applied every few days is very effective in ridding the bushes of these pests. The slugs may also be killed by application of arsenicals. For this purpose, arsenate of lead is preferable. It should be applied at the rate of two pounds in fifty gallons of water or bordeaux mixture (= one ounce to one and one-half gallons). Hellebore is also an effective insecticide, and may be used at the rate of one ounce in two or three gallons of water, or dusted on the foliage dry when diluted with double its weight of powdered plaster or cheap flour. Tobacco extract (nicotine sulphate, or "Black-leaf 40"), as recommended for the control of the rose aphid, will also be found effective against the slugs.*



Plants are occasionally troubled with rose scale, but scale seldom bothers any except old, neglected roses. For this, the lime-sulphur solution or "Scalecide" is quite effective, but best of all is to cut off and burn the affected parts.

POWDERY MILDEW AND BLACK-SPOT doubtless do more to discourage rose-growing among amateurs than all other rose diseases combined. The American Rose Society evinced its value to rose-growers when recently it engaged Prof. L. M. Massey, Plant Pathologist of Cornell University, to run these two "beasties" (as Burns might say) to cover, hoping thus to corner them, and to teach us all how to overcome them and keep

* 1922 "American Rose Annual," page 93.



Rosa Wichuraiana has shiny green foliage nearly all the year

them thereafter in perpetual subjection. Some roses (the Crimson Rambler is an example) are more susceptible to mildew than others. Outdoors there is usually less danger than under glass, but roses grown in the open, if in damp, low, or closely cornered locations that suggest air-pockets, are more likely to succumb, and, too, as a result of continued damp or "muggy" weather than when the conditions surrounding are bright and airy, thus drying up quickly the minute fungous growth which flourishes best under moist conditions.

You will notice that the tender foliage and young growth is usually first to show signs of mildew, easily recognized in white or grayish spots which may grow more intense and later disappear, leaving the affected surfaces black and dejected, until the leaves actually drop off. Thus they and even the tender buds also infected become worse than worthless because they are a menace to the rest of your garden.

Prevention is the best cure; therefore it is worth trying to locate the probable sources of this detestable fungous infection. First, according to Prof. Massey, "note that the greater portion of the vegetative structure, called *mycelium*, is on the *outside*

of the leaf. In the case of black-spot the mycelium is *within* the leaf. At various points the mycelial threads of the mildew fungus are attached to the surface of the plant by minute branches or suckers which are sent into the outer cells of the leaf or stem from which the fungus obtains its nourishment."

When the fungus has matured, as it does quickly, these chains of egg-shaped spores are easily carried by the slightest currents of air to other leaves and thus the trouble spreads—unless we check it, and that, as in many another case, is easier done if "nipped in the bud" because otherwise another spore soon develops which persists more tenaciously and is more difficult to dislodge. Prof. Massey tells us that sometimes winter spores are produced which "can live over winter outdoors and may serve to start trouble in the spring."

"Another source of inoculum for roses in the open is the distribution of the summer spores—formed throughout the year on the roses under glass." These plants in turn are planted out and then these spores may be carried considerable distances by wind, rain, birds, insects, and other agents, and under proper conditions of temperature, moisture, and position, germinate and produce infection.

Remedies are various,* but probably the most effective and easily applied and least unsightly is a ground dust mixture consisting of 90 parts sulphur and 10 parts of arsenate of lead. Use a dust gun, and apply upon the first appearance, preferably to all your roses. A week later repeat the dose, and, if necessary, a third time. Then watch out against future recurrence. Powdery mildew can be eradicated after it appears if you attack it properly.

Black-spot attacks the foliage in the late spring or the summer not only making it unsightly but actually defoliating the plants and often seriously checking both growth and bloom.

Many rose-gardens prove, however, that black-spot can be controlled if one proceeds in earnest. You will recognize irregular circular black splotches on the surface of the leaves which soon after begin to turn yellow and drop off. Cool nights and heavy dews favor its development.

*Many other formulas are good. See 1922 "American Rose Annual," page 77. Also "Enemies of the Rose," by George Massee and F. V. Theobald, 1910, National Rose Society of England.



When this little girl grows up and has a garden of her own, she
too should know how to grow fine roses

This fungoid parasite lives over winter in dead leaves of roses only. For that reason, if for no other, all such should be removed and burned. The spores develop and circulate with the utmost alacrity, and, carried by wind, insects, or otherwise, easily find lodgment on the rose leaves. Here they germinate and soon make their way underneath the cuticle of the leaf where they continue to live throughout the summer and winter. Each such spot in two weeks is capable of maturing thousands of fresh summer spores, and each of these infinitesimal spores may produce another spot which fifteen days later produces another crop of spores and spots and so following.

Thus will be seen the paramount importance of checking this wasteful disease upon or before its first appearance, because the spores may be present even though invisible to the unaided eye. An ounce of prevention here may be worth much more than the proverbial pound of cure a few weeks later.

Suppose we could find and burn every dead rose leaf in sight, we should still need other preventive measures.

"The one that has been successful in the control of black-spot is that of protecting the rose by covering the leaf with some fungicide that will prevent the spore of the fungus from penetrating the cuticle. Spores need moisture for germination, and under favorable conditions will send forth a germ-tube and penetrate the leaf within a very few hours. Once within the tissue, no treatment non-injurious to the leaf can be given which will kill the parasite. The problem, then, is to *have the fungicide present on the leaf when the necessary moisture for germination and infection is present*. This means that the fungicide must be applied *before* rains; that it must adhere to the leaf; that it must be so highly insoluble that it is not readily washed away, but not so much so but that it will go into solution as needed; and that it must be fatal to the fungus and uninjurious to the rose."*

Bordeaux mixture has proved efficient (4 ounces copper sulphate and 4 ounces of unslaked lime to $21\frac{1}{2}$ gallons of water or a prepared mixture to correspond).

Another fungicide that has been found as effective as the above, but which does not so much discolor the leaves, is the "90-10 dust mixture" containing 90 parts finely ground sulphur

*Prof. Massey, in the 1922 "American Rose Annual," page 83.

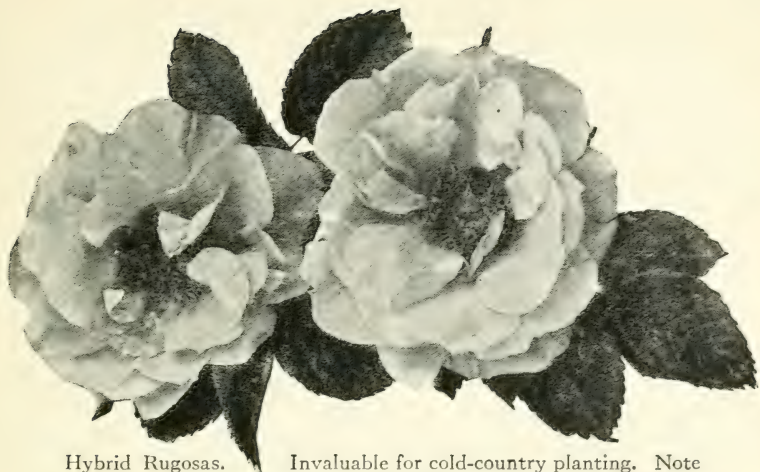
and 10 parts arsenate of lead. Such a mixture or "all in one," containing nicotine as well as the two ingredients above noted, may now be obtained and constitutes an effective control of fungi and of chewing and sucking insects.

One friend, I know, sprays practically once a week under and on top of the foliage; another begins when the leaf buds begin to swell, and repeats the operation every two weeks and never lets three weeks pass without an application. It is important to have the liquid finely sprayed, as when applied from a pressure sprayer such as may be had from E. C. Brown Company, of Rochester, N. Y., and for the dust mixture a good dust gun can be obtained at a reasonable price. (The author will be glad to suggest the names of several dealers.)

Remember that after the disease has become seated it cannot be dislodged; therefore the material must be applied before the disease appears and the entire upper surface of the leaves covered and likewise the new growth as it appears. The need for thoroughness cannot be overemphasized. After you have made a start with your spraying, the trouble is much less than might at first be imagined and the results make such effort abundantly worth while.



Hybrid Wichuraianas, if given some support, make an excellent hedge



Hybrid Rugosas.

Invaluable for cold-country planting. Note the beautiful foliage

CHAPTER IX

PRUNING

"I hid my heart in a nest of roses."

—SWINBURNE

IF you have bought two- or three-year-old plants, cut them back rather severely at the time of planting—to three or four buds on the Hybrid Perpetuals and about six on the Teas and Hybrid Teas. Always cut the stem just above a bud that points out, never above one that points toward the center of the plant. The term bud or eye is used to define the places on the stem where leaves will be produced. They are easily distinguished, as they look like small, pointed warts on the stems. If the plants are in leaf when planted, the above does not apply. The crop of flowers on the rose plants is largely governed by the kind of pruning the plants receive. In fact, other conditions being ideal, the pruning determines the quantity and the size of the flowers.

The Hybrid Perpetuals and most other hardy roses should be pruned in March; if weather permits, by the middle of the month. The tender roses, the Teas and Hybrid Teas, need not be pruned until along in April, when the sap begins to flow and the buds begin to swell; for, at this time, dead and weak wood

may be much more easily distinguished and cut out than earlier in the season. Besides, it is an advantage to leave the mulch undisturbed until settled weather has arrived. At the time of pruning, one must decide upon the kind of crop wanted. If the very biggest and best flowers are wanted, severe pruning is necessary (see 1, page 97); if a large crop of average flowers, only moderate pruning (see 2, page 97); but where a quantity of bloom is preferred, only a little pruning is necessary (see 3, page 98).

When pruning Hybrid Perpetuals, first cut out the weak wood and any branches that cross; then cut back the strong canes to about six eyes, the top one pointing out, and the cut being made one-quarter of an inch above the bud. If you want only a few big flowers, cut back to only three or four buds. For



Showing where to
prune

the big outdoor display, leave four to seven canes two-thirds their growth. The Teas and Hybrid Teas will need the same attention, but there should be as much or more wood left. In case the winter may have killed the canes, cut back to live wood, even if down to the surface of the soil.

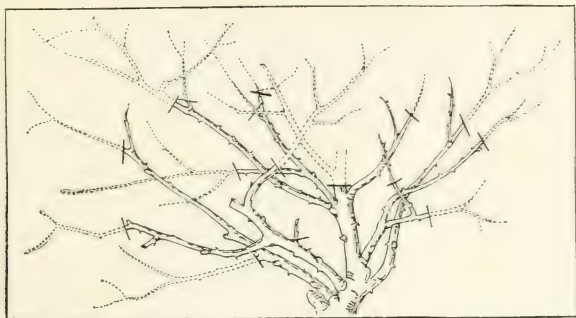
These rules are modified somewhat by the character of the plant. *The weaker-growing varieties can be cut back farther than strong-growing sorts.* The strong-growing kinds, if cut back too heavily, will run to wood, and, in the case of some, too heavy pruning may kill the plant.

Austrian Briar roses (also the Bourbons) need very little pruning. The Wichuraianas and many of the Multifloras bloom on the branches produced the previous summer; hence these should be pruned very little during autumn or spring; but just as soon as they have finished blooming in the summer, entirely remove the old flowering shoots to give the new growth plenty of light and air.

Climbing and Pillar roses need be cut back but one-third to one-fifth, and on old, well-established plants, the old, enfeebled wood should also be taken out.



"Over the garden wall" is only one of many places where most effective use may be made of a Yellow Hardy Climbing Rose. There are others, but none finer than GARDENIA, or "Hardy Marechal Niel," as shown above.



Method of pruning Hybrid Teas for garden display
(As recommended by the N. R. S. of England)

The base of the branches may be prevented from becoming bare. In straight branches, the sap goes to the top, leaving little for the buds at the base. Train the branches up crooked by putting sharp bends in the stems within 2 feet of the ground, and foliage will be produced the whole length of the stem. To get a second crop of flowers in autumn, cut 8 to 10 inches of wood with the flowers. Several Hybrid Perpetuals will also bloom in autumn with this treatment. (See page 169, and also the list of 157 roses on pages 101 to 119.)

In autumn extra-long canes will need to be cut back a little, and perhaps tied to a stake or support, to prevent swaying and the consequent damage to the roots.

HOW TO USE THIS PRUNING INFORMATION

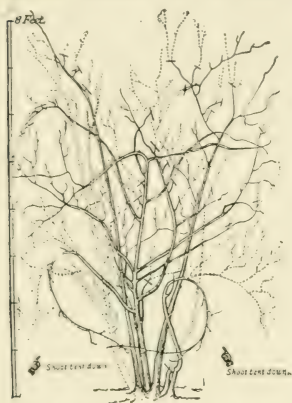
Refer to pages 101 to 119 for varieties on which information is desired. Opposite each name will be found abbreviated directions for pruning. Illustrations herewith will further explain the instructions. The key to these directions is fully explained on this and the succeeding page. For the following codification the author acknowledges use of the N. R. S. "Handbook on Pruning Roses" (see page 181).

1. **HARD.** Thin out to the base all but from three to five shoots, and cut these back so as to leave two or three eyes on each shoot.

2. **MODERATELY HARD.** Thin out as No. 1, and cut each shoot back to about five to ten eyes.

3. MEDIUM. Thin out as No. 1; leave four to seven shoots; shorten these shoots to about half their length.

4. SPARINGLY. Thin out as No. 1; leave four to seven shoots, which should be merely tipped.



The way to prune and thin out climbing roses

5. THIN. No pruning required; thin out annually.

6. NONE. No pruning required; thin out every two or three years, just to keep the plant within bounds.

7. Climbing, Pillar, and all other roses that are marked 7 can be improved by thinning, when one or more of the stems show plainly that they are old and past doing good service. This should not be necessary oftener than every three years. Kinds marked + are more likely to need it than kinds marked —. The needs of such roses as Mrs. Peary,

Marechal Niel, etc., are not covered by any of the notes, where the climate is warm enough not to kill back the main stems. In this case, the branches should be trimmed so as to leave from two to ten eyes.

Ex. Method to use to produce exhibition specimens or large flowers.

Q. Method to use to produce showy bushes or a quantity of flowers.

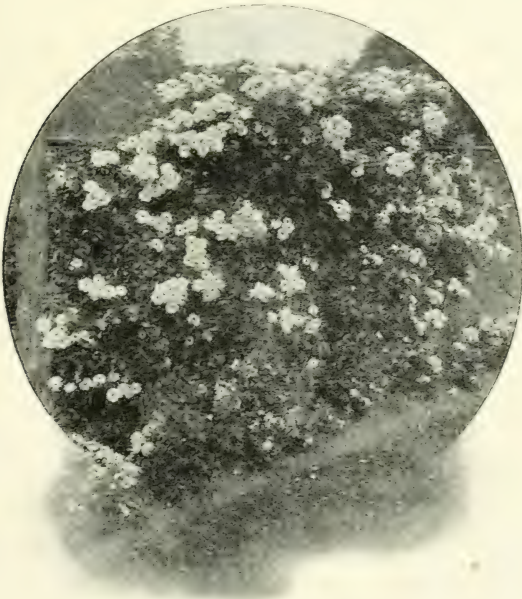
“NOTE 1.—Pruning, therefore, is the art of improving the productive power and the appearance of the plant. It consists of two distinct operations: (1) The removal of dead, weak, overcrowded, or otherwise useless shoots. Unripe wood which in the spring will usually be found to have discolored pith, caused by the winter frosts, should be cut clean away at the base of the shoot. (2) Pruning proper, the shortening of those shoots which are allowed to remain after the thinning-out process has been completed.

“The most frequent errors made in pruning are (1) leaving too many shoots when thinning out; (2) pruning severely the

shoots of varieties which require little, if any, shortening; (3) pruning lightly the varieties which require severe pruning; (4) leaving rose plants crowded with shoots and cutting these to a uniform length all over the plant in the same way that a hedge is clipped.

"In thinning out a shoot, it should be either cut clean away to the base of the plant, or to its starting-point on the older shoot from which it springs, as the case may be. When the plant has been pruned, the shoots should be left as nearly as possible equidistant from each other, and regularly arranged around it so that it presents a well-balanced appearance on all sides."—*National Rose Society's Hand-Book on Pruning*.*

*Copies of this valuable book may be purchased on application to Author "How to Grow Roses," West Grove, Pa.



Here is a beautiful hint, easily and cheaply adopted by anyone whose fences are bare. See varieties mentioned on page 49



Can you imagine anything more generous than the billowy abundance of the Lady Gay here shown?

CHAPTER X

THE BEST ROSES FOR AMERICA

"Then how grace a rose?"

—ROBERT BROWNING

NO less than 2,500 names of roses and over 1,900 varieties have been under consideration when making the following selection, with the idea constantly in mind of eliminating the inferior and including only those which for some reason have an individual interest of more or less unique value. Out of twenty-five years of loving and living with roses and serving roses to the people of America, has come this choice. Not for a moment would the author claim this list to be the result exclusively of his garden observations, but rather judgment resulting from combining with that, evidence of every kind. Because there is here reflected the choice of many thousands of amateur rose-growers, as indicated by their comparative purchases in this country; also, the choice indicated by the consensus of opinion on the part of large producers—supplemented by the judgment of some of the most keenly discriminating rose men now judging garden roses. This list is for no one section of the country only. Sectional selections are fully treated on page 121. A much larger list of varieties will be found under separate classifications on page 168. Here you have not all the newest, but certainly all that have been sufficiently tested to justify their appearance in this list.

ALEXANDER HILL GRAY. T. Flowers deep lemon-yellow, which intensifies as the blooms develop; large, of deep substance and perfect formation. Gold Medal, N. R. S. Garden, bedding, cut-flower. Prune 4.

AMERICAN LEGION. HT. Flowers bright cerise-red; very large and full. Garden, bedding, cut-flower. Prune 2. (See illustration, page 104.)

AMERICAN BEAUTY, CLIMBING. HW. Flowers deep pink to crimson; fragrant. Produces hundreds of perfect blooms at one time. Very vigorous. Pergola, arch, porch, etc. Prune 6, 7—.

AMERICAN PILLAR. Mult. Flowers chaste pink; single; large, 2 to 3 inches across; in large clusters. Leaves almost evergreen. Very vigorous. Has attractive, brilliant red hips in autumn. Pergola, pillar, etc. Prune 6, 7. (See illustration, page 46.)



American Pillar

A Baby Rambler

Anna de Diesbach

AMY ROBSART. HSB. Flowers bright rose; medium size. Foliage fragrant. Hedge. Prune 6, 7.

ANNA DE DIESBACH. HP. Flowers rose; fragrant. Profuse bloomer. Garden. Prune 1 for Ex., 3 for Q. (See illustration above.)

ANTOINE RIVOIRE. HT. Creamy white to deeper yellow and peachy pink center. Vigorous. Garden, bedding. Prune 3.

ARTHUR R. GOODWIN. HT. Buds and flowers rich coppery orange-red which shades to salmon-pink as the flower ages; very lasting; blooms large and double. Garden, bedding. Prune 3.

AUSTRIAN COPPER. AB. Flowers coppery red, reverse of petals golden yellow; single; medium size. Prune 6.

AVIATEUR BLERiot. HW. Flowers deep saffron-yellow and copper. Vigorous. Pergola, arch, pillar, etc. Prune 6, 7.

BABY RAMBLER, RED (Mme. Norbert Levavasseur). P. The first "Baby Rambler" rose. Flowers dark red. Blooms all the time. Dwarf. Bedding, edging. Prune 5.

BESS LOVETT. HW. Flowers scarlet-crimson. Very vigorous. Pergola, pillar, arch, etc. Prune 6, 7.

BLANC DOUBLE DE COUBERT. HR. Flowers white, double, large and showy. Very hardy. Vigorous. Hedge, bush. Prune 5, 7-.

BLANCHE MOREAU. M. Flowers pure white; large and full. Bedding. Prune 3.

CHATEAU DE CLOS VOUGEOT. HT. One of the darkest colored Hybrid Tea roses. Flowers velvety maroon, shaded fiery red—very dark. Garden. Prune 2. (See illustration, page 104.)

CHRISTINE. HT. (New.) Flowers clear yellow. Vigorous. Garden, bedding. Prune 1 for Ex., 3 for Q.

CLIO. HP. Flowers flesh-color, shaded pink; large; fine form. Vigorous. A very choice variety. Garden. Prune 1 for Ex., 3 for Q.

COLUMBIA. HT. Flowers rose-pink, very large and double. Garden, bedding. Prune 1 for Ex., 3 for Q. (See page 40.)

CONRAD F. MEYER. R. Flowers clear silvery rose; large, perfectly double, elegantly formed; very fragrant; flowers and buds of fine form. Very hardy. Garden, bush or hedge. Prune 6.

CRESTED MOSS. M. Flowers choice pink, and heavily mossed. A lovely old favorite. Bedding. Prune 3.

DEAN HOLE. HT. Flowers silvery carmine, shaded salmon; large and full. Garden, bedding, cut-flower. Prune 1 for Ex., 3 for Q.

DEVONIENSIS. T. Flowers creamy white with rosy center; very full. An old-time favorite. Garden, bedding. Prune 2.

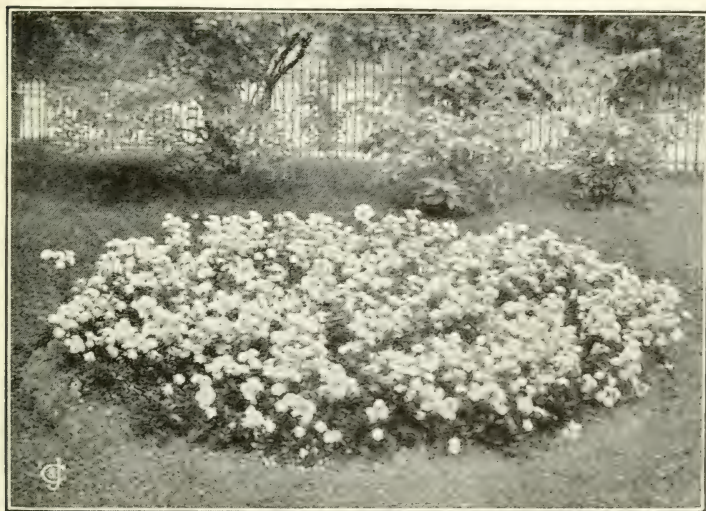
DR. HUEY. HW. Flowers dark crimson-maroon—does not fade; semi-double. Vigorous. Arches, porches, pergolas, etc. Prune 7.

DR. W. VAN FLEET. HW. Flowers rich flesh-color. Stems 18 inches long. Very vigorous. Pergola, arch, etc. Prune 6, 7—. (See page 62.)

DUCHESSE DE BRABANT. T. Flowers deep rosy pink, edged with silver. Has been extensively planted about the White House, at Washington, D. C., a free bloomer. Bedding. Prune 4.

DUCHESS OF WELLINGTON. HT. Flowers intense saffron-yellow. Garden, bedding, cut-flower. Prune 3. (See page 15.)

EDWARD MAWLEY. HT. Flowers rich velvety crimson; large, perfect form. Garden, bedding, cut-flower, exhibition. Prune 1 for Ex., 3 for Q.



An all-summer show of bloom. An example of what Baby Ramblers will do in a bed



Chateau de Clos Vougeot



American Legion

- ELDORADO.** HT. Flowers golden yellow, base tinted red; large. Free-flowering; vigorous. Garden, bedding. Prune 3.
- ELLEN POULSEN.** TP. Flowers brilliant pink; full; sweet-scented. Very floriferous. Garden, bedding, edging. Prune 3.
- EMILY GRAY.** HW. Flowers yellow—does not fade. Very vigorous. Porch, arch, pergola, wall, etc. Prune 7.
- ERNA TESCHENDORFF.** P. Flowers rich crimson; freely produced. An improved Red Baby Rambler. Bedding, edging. Prune 3.
- ETOILE DE FRANCE.** HT. Flowers intense, brilliant crimson; extra-large, double; fragrant; buds large, pointed. Vigorous; very free bloomer. Bedding. A choice variety. Prune 2.
- EUGENE JACQUET.** HW. Flowers cherry-red; fragrant. Vigorous. Also popular as a forcing rose for Easter. Porch, arch. Prune 7.
- EXCELSA** (Red Dorothy Perkins). HW. Clear carmine-lake. Very vigorous; late-flowering. Fine in every way. Arch, porch, trellis, etc. Prune 6, 7—.
- F. J. GROOTENDORST.** R. (New.) A new type with dense foliage and doubtless the best variety for making a hedge. Flowers rich red, notched like carnations; come in clusters from June till frost. Bush, hedge. Prune 5. (See page 108.)
- FRANCIS SCOTT KEY.** HT. Flowers crimson-red; very full. Garden, bedding. Prune 2.
- FRAU KARL DRUSCHKI** (White American Beauty). HP. Flowers pure snow-white; immense (4 to 5 inches across), perfectly double; not fragrant. The finest pure white rose in this class. Vigorous. Bedding, bush, garden. Prune 1 for Ex., 3 for Q. (See illustration, page 107.)



THE STANDARD HYBRID PERPETUAL, GEN. JACQUEMINOT

Do you know the quaint custom that still holds in one of the country towns of Pennsylvania, whereby, in accordance with the will of Baron Stiegel, there is paid for the church property, with an appropriate anniversary celebration, an annual rental of one red Rose?

No other Rose can be counted upon for this service so surely as the dear old favorite "Jack."



Frau Karl Druschki

Gen. Jacqueminot

Gloire Lyonnaise

GARDENIA. HW. Flowers yellow, changing to creamy white; fragrant; Very vigorous; free bloomer; creeping. Prune 6, 7— (See illustration in color, page 96.)

GENERAL JACQUEMINOT. HP. Flowers brilliant crimson, velvety; fragrant. Vigorous. Bedding, garden, pot, and standard. Prune 2 for Ex., 3 for Q. (See illustration in color, page 106.)

GENERAL MACARTHUR. HT. Flowers glowing crimson-scarlet; fragrant. Vigorous. Bedding, garden. Prune 2.

GENERAL-SUPERIOR ARNOLD JANSSEN. HT. Flowers deep glowing carmine; large; freely produced. Garden, bedding. Prune 2.

GEORGE ARENDS (Pink Frau Karl Druschki). HP. Flowers tender rose-pink. Garden, bedding. Prune 1 for Ex., 3 for Q.

GHISLAINE DE FELIGONDE. Mult. Flowers yellowish white and tinted copper. Vigorous. Arch, trellis, porch. Prune 7.

GLOIRE DE CHEDANE GUINOISSEAU. HP. Flowers bright vermilion-red. Bedding, garden. Prune 2 for Ex., 3 for Q.

GLOIRE DE DIJON. CT. Flowers creamy buff and yellow; large, full; fragrant. Vigorous. Trellis. Prune 7—.

GLOIRE LYONNAISE. HP. Flowers pale lemon; large. Very vigorous. Garden, bedding. Prune 2 for Ex., 3 for Q.

GOLDEN EMBLEM. HT. Flowers golden yellow. Vigorous, bedding, garden. Prune 2.

GORGEOUS. HT. Flowers orange-yellow, veined reddish copper. Vigorous, bedding, garden. Prune 2.

GRUSS AN AACHEN. TP. Flowers flesh-pink and yellow; very double. Free flowering; vigorous. Edging, bedding. Prune 4.

GRUSS AN TEPLITZ. HT. Flowers bright crimson. Vigorous; free bloomer. Garden, bedding, bush, and standard. Prune 4.



Hugonis



F. J. Grootendorst

HADLEY. HT. Flowers deep velvety crimson that does not fade; perfectly formed. Garden, bedding. Prune 1 for Ex., 3 for Q.

HARRY KIRK. T. Flowers deep sulphur-yellow with edge of petals lighter; large, intensely fragrant. Garden, bedding. Prune 2. (P. 110.)

HENRI MARTIN. M. Flowers bright rosy red; large; fragrant. Free bloomer; vigorous. Fine in its class. Prune 3.

HIAWATHA. HW. Flowers brilliant scarlet; single; bright and effective. Vigorous. Arch, trellis, etc. Prune 6, 7—.

HOOSIER BEAUTY. HT. Flowers glowing crimson—one of the richest-colored roses in cultivation; large, full; deliciously sweet-scented. Garden, bedding, cut-flower. Prune 3.

HUGH DICKSON. HP. New. Flowers brilliant crimson, shaded scarlet; very large and full; fine form; highly perfumed. Free-flowering; vigorous. Garden. Prune 1 for Ex., 3 for Q.

HUGONIS. Species. (New.) Comes from North China and some esteem it the most beautiful of all roses with single flowers. Flowers clear yellow, single, but produced in such profusion that they almost hide the foliage. Foliage is small and dainty, more like an acacia than a rose leaf. Hardy everywhere in the United States. Bush, hedge. Prune 6. (See also illustration in color on page 115.)

HUGO ROLLER. T. Flowers lemon-yellow and crimson. A tea-scented "pictorial" flower. Garden, bedding. Prune 2.

J. B. CLARK. HP. Flowers intense, deep scarlet, shaded blackish crimson. Vigorous. Garden, bedding. Prune 1 for Ex., 3 for Q. (See page 55.)



Kaiserin Auguste Victoria



Lady Alice Stanley

JONKHEER J. L. MOCK. HT. Flowers carmine on the outside, lovely soft pink inside. Garden, bedding, cut-flower. Prune 2.

KAISERIN AUGUSTE VICTORIA. HT. Flowers white, shading to lemon; deep, full; fragrant. Free bloomer. Garden. Prune 3.

KILLARNEY. HT. Flowers brilliant pink; long, pointed buds. Free bloomer; moderately vigorous. A great favorite. Garden, bedding, cut-flower. Prune 3.

KILLARNEY, CLIMBING. CHT. Flowers brilliant pink; long, pointed buds. Arch, trellis. Prune 7.

KILLARNEY BRILLIANT. HT. Flowers larger, more double, and a deeper pink than the parent Killarney; fragrant. A free bloomer. Garden, bedding, cut-flower. Prune 3.

KILLARNEY, DOUBLE WHITE. HT. Flowers pure white; long-pointed buds. Vigorous. Garden, bedding, cut-flower. Prune 3. (P. 113.)

LADY ALICE STANLEY. HT. Flowers deep coral-rose and pale flesh; large, exceptionally full; very lasting when cut. Garden, bedding, cut-flower. Prune 3.

LADY ASHTOWN. HT. Flowers pale rose, shading to yellow at base of petals. Garden, bedding. Prune 1 for Ex., 3 for Q.

LADY ASHTOWN, CLIMBING. CHT. Flowers pale rose, shading to yellow at base of petals. Vigorous. Pillar, trellis, arch. Prune 6.

LADY HILLINGDON. T. Flowers deep apricot-yellow, shading to orange. Garden, bedding, cut-flower. Prune 2. (See illustration, page 110.)



Harry Kirk



Lady Hillingdon

LADY PENZANCE. HSB. Flowers soft coppery tint. Foliage fragrant. Hedge. Prune 6, 7.

LADY PIRRIE. HT. Flowers coppery red, changing to salmon and ivory-white. Garden, bedding. Prune 2.

LADY PLYMOUTH. T. Flowers cream, faintly flushed with pink; large. Garden, bedding. Prune 3.

LADY URSULA. HT. Flowers flesh-pink; well formed. Vigorous. Garden, bedding, cut-flower. Prune 1 for Ex., 3 for Q. (See page 111.)

LAFAYETTE. P. Flowers brilliant cherry-crimson; large. Bedding. Prune 5.

LA FRANCE. HT. Flowers silvery rose, changing to pink; large, fine form; sweet scent; lovely buds. Moderately vigorous. Garden, bush, standard, and cut-flower. Prune 2. (See page 113.)

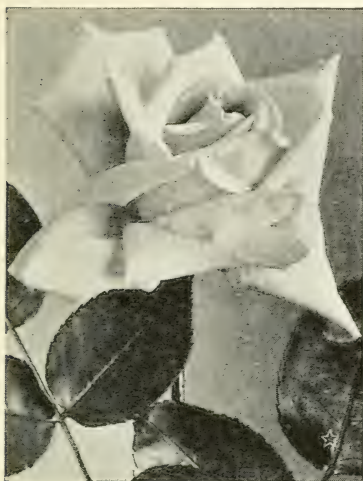
LA TOSCA. HT. Flowers rose. Free bloomer; good; vigorous. Garden, bush, bedding. Prune 3.

LAURENT CARLE. HT. Flowers brilliant, velvety carmine; large and perfect; intensely fragrant. Garden, bedding. Prune 2. (See page 111.)

LOS ANGELES. HT. Flowers luminous pale pink and coral shaded with gold; large; very fragrant. Vigorous. Garden, bedding. Prune 1 for Ex., 3 for Q. (See page 42.)

LOUISE CATHERINE BRESLAU. Per. Flowers shrimp-pink, shaded with reddish coppery orange and chrome-yellow on the reverse of petals. Garden, bedding. Prune 5.

MME. ABEL CHATENAY. HT. Flowers rosy salmon-carmine, shaded rose; perfect form, medium size. Garden, bedding, cut-flower. Prune 2.



Lady Ursula



Laurent Carle

MME. BUTTERFLY. HT. Flowers pink, apricot and golden yellow; perfect form, medium size. Garden, bedding, cut-flower. Prune 2. (See page 35.)

MME. CAROLINE TESTOUT. HT. Flowers clear pink, edged silvery rose. Magnificent variety. Garden, bedding. Prune 2.

MME. CAROLINE TESTOUT, CLIMBING. CHT. Flowers clear, rich pink; large and full. Vigorous. Pillar, arch, trellis. Prune 7.

MME. EDOUARD HERRIOT (*The Daily Mail Rose*). Per. The most unique variety recently introduced. Flowers medium size, semi-double, superbly colored—coral-red shaded with yellow and bright rosy scarlet, passing to prawn-red. Garden, bedding. Prune 5.

MME. EUGENE MARLITT. Bour. Flowers carmine-red; fragrant. Free bloomer; vigorous. Bedding. Prune 4, tip severely.

MME. JULES BOUCHE. HT. Flowers white, sometimes shaded primrose or light blush. Vigorous. Garden, bedding, cut-flower. Prune 2.

MME. JULES GOUCHAULT. P. Flowers vermillion-red, shaded orange-red. Bedding, edging. Prune 5.

MME. MELANIE SOUPERT. IIT. Flowers salmon-yellow, suffused carmine; fragrant. Free bloomer. Garden, bedding. Prune 2. (P. 117).

MME. SECOND WEBER. HT. Flowers salmon-flesh color, deep pink when opening. Garden, bedding. Prune 2.

MLLE. CECILE BRUNNER. P. Flowers seashell-pink, borne in sprays continually. Garden, bedding, bouquets, boutonniere, edging. Prune 5.

MAGNA CHARTA. HP. Flowers pink, suffused with carmine. Vigorous. Bedding. Prune 2 for Ex., 3 for Q. (See illustration, page 113.)

MAMAN COCHET. T. Flowers coral-pink, shaded rosy crimson; large, very double, full; fragrant. Vigorous. Garden, bush. Prune 2.

MAMAN COCHET, PINK, CLIMBING. CT. Flowers coral-pink, shaded rosy crimson. Porch, trellis, arch. Prune 7.

MAMAN COCHET, WHITE. T. Flowers pure white, outside petals tinted pink. Large, full; fragrant; buds long, pointed. Garden, bush. Prune 2.

MAMAN COCHET, WHITE, CLIMBING. CT. Flowers pure white, outside petals tinted pink; large, full; fragrant; buds long, pointed. Vigorous. Porch, arch, trellis. Prune 7—.

MARECHAL NIEL. N. Flowers deep yellow; large, globular, full; sweet scented. Vigorous. A most beautiful climber. Hardy only in the South. Porch, pillar, pot, standard, etc. Prune 7—.

MAX GRAF. R. Flowers bright pink, single, crimped. Climbing or trailing habit. Vigorous. Wall, creeping. Prune 7—.

MISS ALICE DE ROTHSCHILD. T. Flowers rich yellow. We call it "Bush Marechal Niel," although it is hardier than Marechal Niel. Garden, bedding. Prune 2. (See page 114.)

MISS EDITH CAVELL. P. Flowers brilliant scarlet, overlaid with crimson and maroon; single. Constant bloomer. Dwarf. Bedding, edging. Prune 5. (See page 85.)

MISS LOLITA ARMOUR. HT. Flowers coral-red with coppery red suffusion; large, double. Vigorous. Garden, bedding, exhibition. Prune 1 for Ex., 3 for Q.



Mrs. John Laing



Magna Charta

White Killarney

La France

MOYESII. Species. Flowers deep blood-red. Vigorous. Bush, hedge. Prune 5. (See illustration, page 122.)

MRS. AARON WARD. HT. Flowers Indian yellow, sometimes tinged salmon-rose. Garden, bedding; boutonniere. Prune 2. (See page 128.)

MRS. AMBROSE RICARDO. HT. Flowers flesh-pink, overlaid with honey-yellow; large and full. Garden, bedding. Prune 2.

MRS. A. R. WADDELL. HT. Flowers coppery red, suffused with salmon. Incessant bloomer. Garden, bedding. Prune 2. (See p. 117.)

MRS. CHARLES E. RUSSELL. HT. Flowers rosy carmine; large. Garden, bedding. Prune 2.

MRS. F. W. FLIGHT. Mult. Flowers light pink; semi-double. Vigorous. Arch, pergola, trellis. Prune 7.

MRS. GEORGE SHAWYER. HT. Flower clear brilliant rose; large. Vigorous. Garden, bedding. Prune 2.

MRS. HERBERT STEVENS. T. Flowers white, shaded fawn and peach-blossom-pink. Garden, bedding. Prune 2.

MRS. JOHN LAING. HP. Flowers soft pink; large, full; fragrant. Free bloomer; vigorous. Garden, bedding. Prune 1 for Ex., 3 for Q. (P. 112.)

MRS. M. H. WALSH. W. Flowers pure white; double, vigorous. Wall, creeping. Prune 7.

MRS. WAKEFIELD CHRISTIE-MILLER. HT. Flowers soft pearly blush. Garden, bedding. Prune 2. (See page 114.)

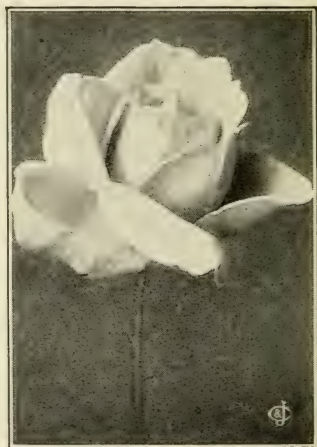
MRS. W. C. EGAN. HT. Flowers soft light pink, inside of petals deep flesh color. Garden, bedding. Prune 2.

MRS. WEMYSS QUIN. HT. Flowers lemon-chrome, shaded soft orange, sometimes flushed crimson. Garden, bedding. Prune 2.

NATIONAL EMBLEM. HT. Flowers dark crimson, shading to vermillion. Garden, bedding. Prune 2.



Miss Alice de Rothschild



Mrs. Wakefield Christie-Miller

NEW CENTURY. HR. Flowers clear flesh-pink with sweet fragrance, like the wild rose. Extremely hardy. Hedge, bush, or garden. Prune 6.

OLD GOLD. HT. Flowers reddish orange or old-gold, almost single. Bedding. Prune 2.

OPHELIA. HT. Flowers salmon-flesh color with shadings of yellow; perfect form. Blooms constantly. An ideal rose. Garden, bedding, cut-flowers. Prune 1 for Ex., 3 for Q. (See page 42.)

OPHELIA, CLIMBING. CHT. Flowers salmon-flesh color, with shadings of yellow; perfect form. Vigorous. Arch, trellis, porch. Prune 7.

ORLEANS. P. Flowers geranium-red suffused with rose. Makes immense trusses of bloom. Garden, bedding, edging. Prune 3.

ORLEANS, CLIMBING. CP. Flowers geranium-red suffused with rose. Vigorous. Arch, trellis, porch. Prune 6, 7.

PAUL NEYRON. HP. Flowers deep rose; fragrant; opens flat. Vigorous. Bedding, garden. Prune 1 for Ex., 3 for Q.

PAUL'S LEMON PILLAR. CHT. Flowers lemon color; double. Vigorous. Pillar, arch, trellis. Prune 7.

PAUL'S SCARLET CLIMBER. HW. Flowers vivid scarlet. Vigorous; very fine. Porch, arch, pergola, wall, etc. Prune 7. (See page 26.)

PERSIAN YELLOW. AB. Double flowers rich yellow. Prune 6. (See page 155.)

PREMIER. HT. Flowers rich deep rose color; double. Almost thornless. Garden, bedding, cut-flower, exhibition. Prune 1 for Ex., 3 for Q.

PRINCE CAMILLE DE ROHAN. HP. Flowers velvety crimson; large. Vigorous. Bedding. Prune 2 for Ex., 3 for Q.



ROSA HUGONIS from northern China, is perfectly hardy and in the locality of Philadelphia blooms two weeks ahead of any other Rose.

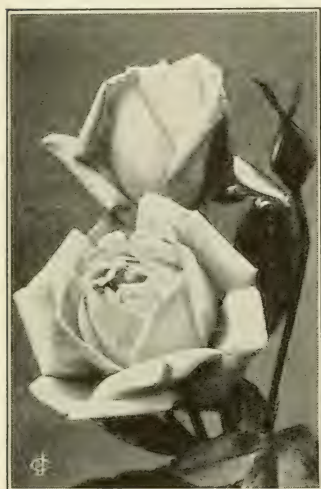


Mme. Melanie Soupert



Mrs. A. R. Waddell

- PRINCE ENGELBERT CHARLES D'ARENBERG. HT. Flowers bright scarlet, shaded purplish red. Vigorous. Garden, bedding. Prune 2.
- RADIANCE. HT. Flowers rosy carmine and pink. Fine for mass planting. Garden, bedding. Prune 2. (See page 6.)
- RED-LETTER DAY. HT. Flowers vivid crimson-scarlet. Garden, bedding. Prune 2.
- RED RADIANCE. HT. Flowers clear cerise-red. Vigorous. Garden, bedding. Prune 2. (See page 118.)
- RICHMOND. HT. Flowers scarlet-crimson. Garden, bedding, cut-flower. Prune 2.
- ROBERT HUEY. HT. Flowers carmine-crimson with a wire edge of pink. Garden, bedding. Prune 2.
- ROSE MARIE. HT. Flowers clear bright rose-pink. Vigorous. Garden, bedding. Prune 2.
- ROSERIE. Mult. Flowers deep carmine-pink. Vigorous. Arch, trellis. Prune 6, 7.
- RUBRIFOLIA. Species. Flowers pink; single. Foliage blue-green; stems red. Prune 6.
- RUGOSA ALBA. R. Flowers snow-white; large, single. Free bloomer; very vigorous. Bush, hedge. Prune 6.
- RUGOSA MAGNIFICA. R. Flowers rich carmine. Vigorous. Bush, hedge. Prune 5.
- RUGOSA RUBRA. R. Flowers rosy crimson; large, single. Free bloomer; very vigorous. Bush, hedge. Prune 6.



Rayon d'Or



Red Radiance

SILVER MOON. HW. Flowers snow-white; very large, single blooms that resembles a large-flowering English clematis. Very vigorous. Arch, pergola, porch, etc. Prune 7. (See page 46.)

SIR THOMAS LIPTON. HR. Flowers pure white; fragrant. Leaves beautiful. Very hardy; vigorous; constant bloomer. Hedge, bush. Prune 5, 7+.

SOUV. DE CLAUDIUS PERNET. Per. Flowers sunflower-yellow. Garden, bedding. Prune 2.

SOUV. DE GEORGES PERNET. Per. Flowers orient-red, shading to carmine and suffused with a golden sheen. Garden, bedding. Prune 2.

SOUV. DE PIERRE NOTTING. T. Flowers apricot-yellow, shaded orange. Garden, bedding. Prune 2.

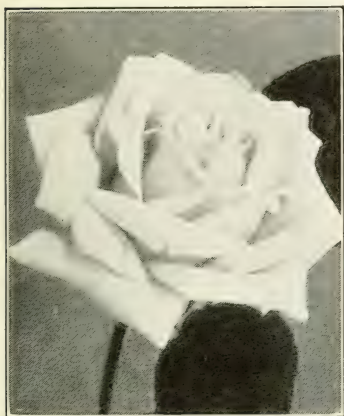
SPINOSISSIMA ALTAICA. Species. Flowers white; single, very large; delightfully fragrant. Bush, hedge. Prune 7—. (See page 138.)

SUNBURST. HT. Flowers intense orange-copper and golden yellow. Extra fine. Garden, bedding. Prune 2. (See page 119.)

SUNBURST, CLIMBING. CHT. Flowers intense orange-copper and golden yellow. Vigorous. Arch, trellis, pillar. Prune 7.

TAUSENDSCHÖN. Mult. Flowers white to deep pink. Very vigorous. Has few thorns. Fine. Porch, arch, etc. Prune 6, 7—. (See page 79.)

TIP-TOP (Baby Doll). P. Flowers pink, white, yellow and orange, combined, making this one of the most attractive roses imaginable. Dwarf grower. Bedding, edging. Prune 5. (See this in color on page 85.)



Wm. R. Smith



Sunburst

ULRICH BRUNNER. HP. Flowers rich red; fragrant; petals broad, round, thick. A standard variety. Vigorous. Garden, bedding, and standard. Prune 1 for Ex., 3 for Q.

WICHURAIANA. W. Flowers pure white; single. Leaves glossy, free from insects. Will grow anywhere. Splendid for holding banks from washing. The canes root wherever they touch the soil so in a short time an embankment becomes a solid mat of glossy foliage. Vigorous. Creeping. Prune 6, 7+.

WILLIAM F. DREER. HT. Flowers silvery shell-pink with yellow at base of petals. Garden, bedding. Prune 2.

WILLOWMERE. Per. Flowers shrimp-pink shaded yellow and carmine. Garden, bedding. Prune 2.

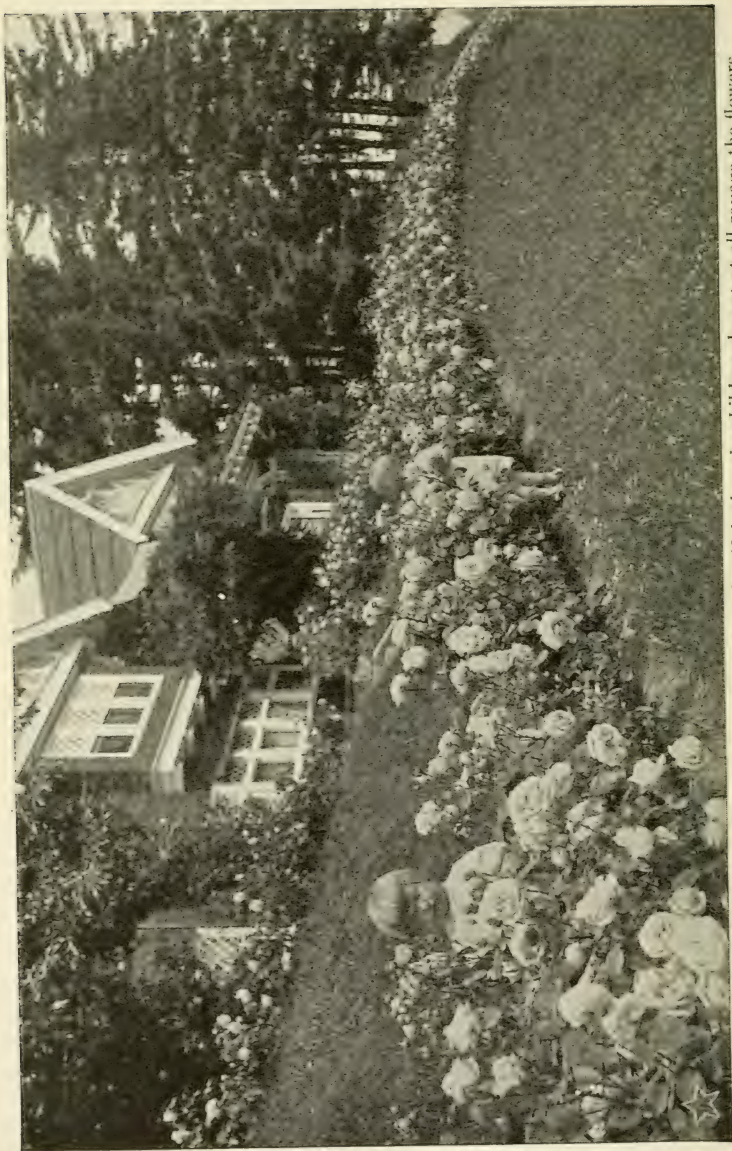
WILLIAM ALLEN RICHARDSON. N. This rose (except in the South) should be grown against a wall with southern exposure. Protect well in winter. Flowers coppery yellow, tinged with carmine; deliciously fragrant. Not hardy. Splendid for the South. Vigorous. Porch, pillar. Prune 5.

WM. R. SMITH. T. One of the finest and hardiest roses in this class. Blush-pink; large; full. Vigorous grower. Garden, bedding. Prune 1 for Ex., 3 for Q. (See synonyms, page 167.)

XANTHINA. Species. Flowers rich yellow; semi-double. Vigorous. Bush, hedge. Prune 6.

YORK AND LANCASTER. Damask. Flowers striped red and white. Very hardy. A very old and rather rare rose. Associated with the "Wars of the Roses." Garden, hedge. Prune 5.

YVONNE RABIER. P. Flowers pure white shaded lemon at base of petals. Bedding, edging. Prune 5. (See illustration page 103.)



"Tis said that in Portland, where the roses are most plentiful, that the children do not at all ravage the flowers
blooming along the sidewalks

CHAPTER XI

SELECTIONS FOR SPECIAL SECTIONS

"The fields in blossom flamed and flushed."

—GERALD MASSEY

THOSE of our readers who live in the more thickly settled sections of our country will recognize, in the following, our dependence upon the modern scientific method of learning the "best roses" for certain localities, i.e., the method of actually testing them. We have had the good fortune to visit personally and to know the rose experts in many sections, and they severally have been so kind as to give us the benefit of their valuable experience, each in the form of a list of roses they have found to thrive. (See also pages 30 to 52, inclusive.)

Roses for North America

The greatest collection of hardy trees and shrubs to be found in this hemisphere is, without doubt, the Arnold Arboretum, at Jamaica Plain, Boston. It is a part of the Park System of Boston and is connected with Harvard University.

Aside from the extensive library and herbarium, there is in this 250-acre park, an outdoor museum of living specimens, founded and carried on to increase the student's knowledge of trees and shrubs. For fifty years past the masterful director of this permanently founded enterprise has been Charles S. Sargent, an outstanding figure in American horticulture.

Together with his assistant director, E. H. Wilson, the famous plant collector, oftener known as "Chinese" Wilson, Prof. Sargent has assembled at the Arboretum a fascinating collection of rose species, and especially those indigenous to the North Temperate Zone.

Professor Sargent has very kindly contributed the following suggestions as representing the most attractive of the rose species for North American use:

Rosa alba
Ecae
Hugonis

Rosa rugosa (the pink-
flowered form)
setigera
spinosissima altaica

Rosa spinosissima fulgens
virginiana
Wichuraiana



This fascinating chocolate-red flower is *Moyesii*, a species as yet rather rare

Roses for Boston and Surrounding Territory

Harriet R. Foote, Marblehead, Mass., an expert builder of rose-gardens, sends the following with the list of her choice:

I am enclosing a list of rose bushes. They are not necessarily my favorites, which are usually among the weaker growers and more tender varieties. This list is for amateurs with small collections. I have placed them according to my audit in order of merit. All these have been tried and tested in my own garden for many years, and are reasonably hardy, though I always give protection.

I have left out *George Arends* on account of its susceptibility to mildew near the ocean. *Mme. Edouard Herriot*, though sometimes a prey for black-spot, seems to be the best of its color, especially for small collections.

Mme. Butterfly may supersede Ophelia; as yet I am not sure, not having grown it long.

Laurent Carle, a prime favorite of mine, the most fragrant of the lot, I find one of the hardest to start in the spring, but once started it is a vigorous grower.

Hugh Dickson and Frau Karl Druschki are, of course, Hybrid Perpetuals, but bloom as freely as some Hybrid Teas. They should be lightly pruned and allowed to grow 5 to 6 feet for best results.

None of the bushes should be pruned low unless needed for exhibition. La Tosca, though a tall grower, should be pruned medium.

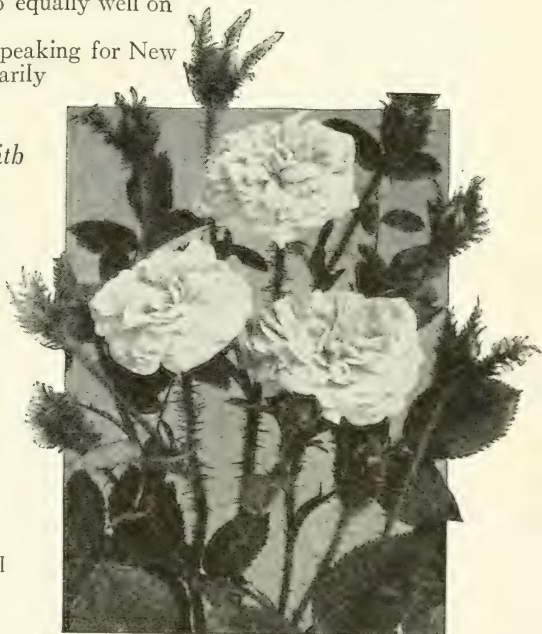
You may wonder why I have not included Los Angeles. So far it has not come up to my anticipations. It does well early in the season, but suffers terribly in some gardens from black-spot late in the summer or early fall. Most of the plants I have had are budded on stocks much too stocky for them; perhaps just the right stock has not been found for it yet.

There are many other varieties almost, if not equally, as good as those in my list, but these certainly will not disappoint one, if well-budded plants are chosen. You know I believe in budded roses; only a few have I found to do equally well on their own roots.

NOTE.—This expert is speaking for New England and not necessarily for warmer zones.

Roses for Amateurs with Small Collections

Etoile de France
Frau Karl Druschki
General MacArthur
Gustav Grünerwald
Hugh Dickson
La Tosca
Lady Alice Stanley
Lady Pirrie
Lady Ursula
Laurent Carle
Miss Cynthia Forde
Mme. Edouard Herriot
Mme. Jules Bouché
Mme. Leon Pain
Mme. Ravary
Mrs. Aaron Ward
Mrs. Arthur Robert Waddell
Mrs. Dunlop-Best
Ophelia
Prince de Bulgarie
Radiancé



Moss Roses

Roses for Central New York State

Rev. E. M. Mills, D.D., is president of the Syracuse (New York) Rose Society, and perhaps America's nearest prototype of Dean Hole, England's great rosarian of beloved memory. The following lists are based upon a close observation of the winning varieties year after year in New York State's largest amateur shows of garden-grown roses. Dr. Mills recommends the following as the best collection of twenty-five Hybrid Teas and Teas for central New York State, considering hardiness, variety of color, vigor of growth, and freedom of bloom.

Hybrid Teas

Antoine Rivoire
Chateau de Clos Vougeot
Columbia
Duchess of Wellington
Florence Pemberton
General MacArthur
Gruss an Teplitz
Jacques Porcher
Killarney
Königin Carola
Lady Alice Stanley
Lady Ashtown

Laurent Carle
Miss Cynthia Forde
Mme. Jules Bouché
Mme. Mélanie Soupert
Mme. Segond Weber
Mrs. Aaron Ward
Ophelia
Radiance
Red Radiance
Sunburst
Souvenir de Claudius Pernet
Souvenir du President Carnot

Teas

Harry Kirk
Lady Hillingdon
Marie Van Houtte

White Maman Cochet
Wm. R. Smith

Climbers

Christine Wright
Climbing American Beauty
Dorothy Perkins

Dr. W. Van Fleet
Emily Gray (pillar)
Excelsa

Hybrid Perpetuals

Captain Hayward
Fisher Holmes
Frau Karl Druschki
George Arends
J. B. Clark

Jubilee
Mrs. R. G. Sharman-Crawford
Paul Neyron
Prince Camille de Rohan
Ulrich Brunner

Hybrid Rugosas

Conrad Ferdinand Meyer

Nova Zembla

Deserving of more general use is the *RUGOSA* family of Roses, with foliage, flowers and fruit each an ornament to a most hardy and satisfactory shrubby plant of fine habit



Roses for Northwestern Long Island

Admiral Aaron Ward, a really great rosarian, died July 5, 1918, but his capable helpmeet, Mrs. Aaron Ward, who was always the trusted custodian of his roses during the Admiral's long voyages, still carries on the great rose-garden at Roslyn. Mrs. Ward has graciously revised the list furnished the author by the Admiral shortly before his death, indicating her own judgment on some of the newer sorts down to date.

The following marked varieties named by the Admiral continue to distinguish themselves as superior sorts. Those thus (*) marked are added now by Mrs. Ward as having been "imported or ordered by the Admiral, but had not proved themselves before he died, though he thought highly of many of them." The list was based upon the following requirements: Autumn blooms indispensable; weak growers barred; also plants of huge growth, like La Tosca or Gruss an Teplitz, except for use in mass effects; flowers to be full, no thinner than Pharisaer; climbers not included.

Hybrid Teas

*Admiral Ward	Marquise de Sinety
Amateur Teyssier	Mme. Abel Chatenay
Augustine Guinoisseau	Mme. C. Chambard
*Augustus Hartmann	Mme. Jules Grolez
*Camoëns	Mme. Leon Pain
Chateau de Clos Vougeot	Mme. Melanie Soupert
Duchess of Wellington	Mme. Segond Weber
Earl of Warwick	Mrs. Aaron Ward
*Etoile de France	Mrs. Arthur Robert Waddell
*Franklin	*Mrs. Charles Bell
*Friedrichsruh	Mrs. Charles Hunter
General MacArthur	Mrs. Edward Powell
General-Superior Arnold Janssen	*Mrs. Franklin Dennison
George C. Waud	Mrs. Harold Brocklebank
*Gruss an Aachen	*Mrs. MacKellar
Gruss an Teplitz	Mrs. Theodore Roosevelt
Gustav Grünerwald	*Mrs. Wakefield Christie-Miller
Joseph Hill	*Ophelia
*Kirchstein	Pharisaer
Königin Carola	Prince de Bulgarie
Lady Alice Stanley	Radiance
Lady Ashtown	*Red Radiance
*Lady Downe	*Robin Hood
Laurent Carle	*Souvenir de Gustave Prat
Lieutenant Chaure	Souvenir du President Carnot

Pernetianas

Constance
Mme. Edouard Herriot

*Mrs. Wemyss Quin
Willowmere

Teas

Marie Van Houtte
Mme. Antoine Mari
Mme. Jean Dupuy

*Mrs. Dudley Cross
*Souv. de Pierre Notting

Hybrid Perpetuals

Frau Karl Druschki
*Mrs. R. G. Sharman-Crawford

*Paul Neyron

Bourbon

Souv. de la Malmaison

Species

*Hugonis



Mrs. Aaron Ward

Roses for Philadelphia and Vicinity

Dr. Robert Huey, the eminent amateur of Philadelphia, was a true pioneer. He was among the first to secure budded roses when they had to be imported. Many are the amateurs who have been guided to success by his experiments and advice. Perhaps his greatest contribution has been as preceptor for his very worthy successor, Capt. Geo. C. Thomas, Jr., who, now in California, is devoting close attention to hybridizing and developing new roses. Dr. Huey recommends the following varieties:

Hybrid Teas

Antoine Rivoire
Betty
Columbia
Duchess of Wellington
Ellen Willmott
George C. Waud
Joseph Hill
Killarney
Lady Alice Stanley
Lady Ashtown
Laurent Carle
Los Angeles
Mabel Drew
Mme. Caroline Testout
Mme. Edouard Herriot
Mme. Hector Leuillot

Mme. Jules Bouché
Mme. Leon Pain
Mme. Mélanie Soupert
Mme. Segond Weber
Mrs. Aaron Ward
Mrs. A. R. Waddell
Mrs. Harold Brocklebank
Mrs. MacKellar
Ophelia
Pharisaer
Prince de Bulgarie
Radiance
Robert Huey
Viscountess Folkestone
Willowmere

Hybrid Perpetuals

Baroness Rothschild
Captain Hayward
Frau Karl Druschki
George Arends
Mrs. George Dickson

Mrs. John Laing
Oskar Cordel
Suzanne-Marie Rodocanachi
Ulrich Brunnèr

Tea Roses (Hardy)

Harry Kirk
Hugo Roller
Lady Hillingdon
Maman Cochet

Safrano
White Maman Cochet
Wm. R. Smith

Climbing and Pillar Roses

Alida Lovett
Christine Wright
Dorothy Perkins
Dr. Huey
Dr. W. Van Fleet
Elisa Robichon

Excelsa
Gardenia
Hiawatha
Reine Marie Henriette
Tausendschön

Roses for Washington, D. C., and Points South

There is less variation, probably, between the climatic conditions of the various sections of the South than between the sections of any other district of the United States, and, consequently, roses which repeated tests have shown to do well in Washington, D. C., may be relied upon quite to the Gulf of Mexico.

Both Charles E. F. Gersdorff* and Furman L. Mulford, of the Department of Agriculture, were close students of Dr. Van Fleet and have had full opportunity to study and draw conclusions from their own carefully kept records and those of the Department of Agriculture, working in conjunction with the American Rose Society.

PINK

American Pillar, HW.
Columbia, HT.
Dr. W. Van Fleet, HW.
Gruss an Aachen, Poly.
Killarney Brilliant, HT.
Magna Charta, HP.
Maman Cochet, T.
Mme. Jules Grolez, HT.
Mrs. John Laing, HP.
Mrs. Wakefield Christie-Miller, HT.
Ophelia, HT.
Radiance, HT.
Tausendschön
Wellesley, HT.
Wm. R. Smith, HT.

RED

Aunt Harriet, HW.
Climbing Souv. of Wootton, HT.
Ecarlate, HT.
Etoile de France, HT.
General Jacqueminot, HP.
Gruss an Teplitz, HT.
J. B. Clarke, HP.
Laurent Carle, HT.
Mrs. B. R. Cant, T.
Paul's Scarlet Climber, HW.
Red Radiance, HT.
Red-Letter Day, HT.
Ulrich Brunner, HP.

WHITE

Climbing White Maman Cochet, T.
Frau Karl Druschki, HP.
Kaiserin Auguste Victoria, HT.
Mary Lovett, HW.
Mrs. Robert Peary, Cl. HT.
Purity, HW.
Silver Moon, HW.
White Killarney, HT.
White Maman Cochet, T.
Duchess of Wellington, HT.

YELLOW

Gardenia, HW.
George Elger, Poly.
Hugonis (must be allowed plenty of space, a circle up to 6 feet or more across.)
Isabella Sprunt, T.
Lady Hillingdon, T.
Mme. Alfred Carrière, N.
Safrano, T.
Tip-Top, Poly.

*Readers who wish to pursue further these recommendations will be interested in the noteworthy contribution of Mr. Gersdorff on rose-records in the 1923 issue of the American Rose Annual.

A Limited List of Roses Satisfactory for Culture Under Conditions Similar to Washington, D.C.

Primarily for Cutting

Alexander Hill Gray
Grace Molyneux
Kaiserin Auguste Victoria
La Tosca
Lady Alice Stanley
Laurent Carle

Mrs. Arthur Robert Waddell
Mrs. Wakefield Christie-Miller
Ophelia
Radiance
Red Radiance
Wm. R. Smith

Stems rather short for cutting, but excellent for garden effect

Beauty of Rosemawr
Gruss an Teplitz
Hermosa

Isabella Sprunt
Marie Van Houtte
Mme. Eugene Marlitt

Baby Ramblers that have the excellence of individual flower approaching the above

Gruss an Aachen

Schneekopf

Tip-Top

Baby Ramblers for Bedding

Baby Tausendschön
Katharina Zeimet

Mrs. W. H. Cutbush
Triomphe Orleansais

Climbers

EARLY

Cherokee Dawson

SECOND-EARLY

Christine Wright Pearl Queen
Paul's Scarlet Cl. Zephirine
Drouhin

MIDSEASON

Alida Lovett Gardenia
Bess Lovett May Queen
Bridal Wreath Silver Moon
Dr. W. Van Fleet

MEDIUM LATE

American Pillar Prof. C. S. Sargent

LATE

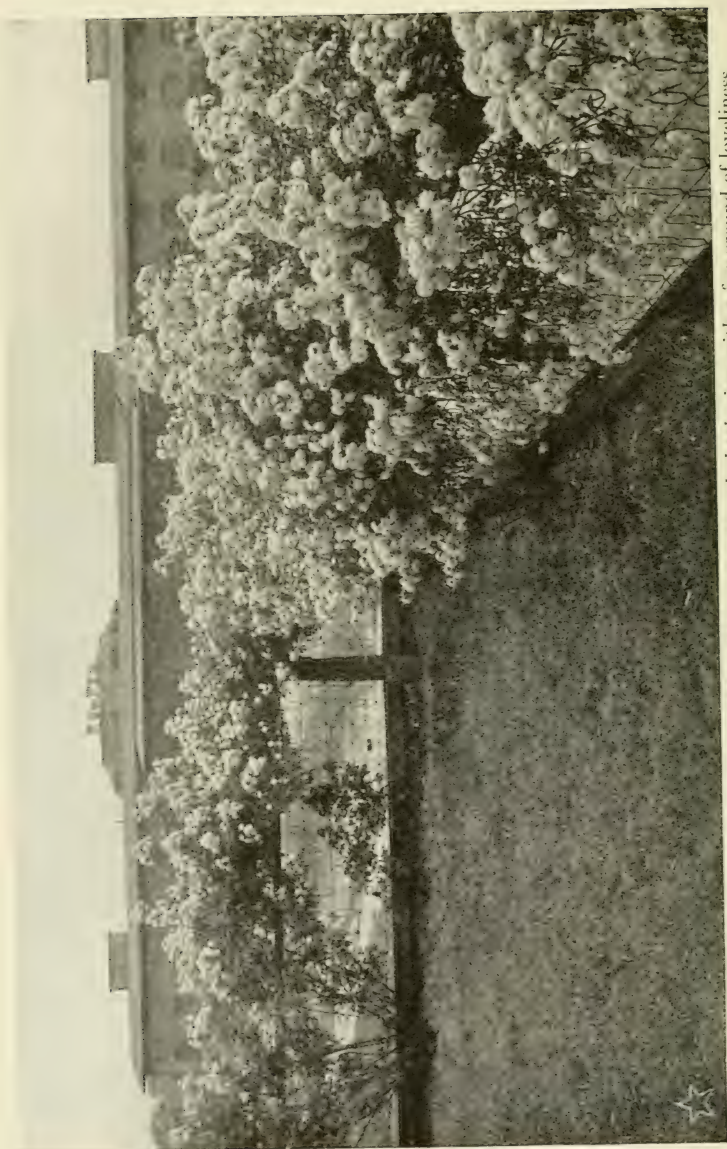
Evangeline Lady Gay
Excelsa White Dorothy
Hiawatha

VERY LATE

Soulicana



Dr. W. Van Fleet



Anyone could do it, and with three climbing roses obscure an ugly back view with a foreground of loveliness

Roses for Indianapolis and Vicinity

The president of the Garden Flowers Society of Indianapolis, J. H. Nicolas, was born and bred in the atmosphere of roses. He knows them and loves them. It would be difficult to find anyone so near the center of population of the United States who is better qualified to choose wisely from among all the roses for outdoor enjoyment. Mr. Nicolas makes for us the following important contribution:

Roses in Indiana

From my experience of several years with roses in Indianapolis, testing many varieties, new and old, I am satisfied that the following varieties will give the beginner best results without exacting more than casual attention. Of course, many others will do well here, but with the following lists (a first reader, so to speak) the beginner will make no mistake, and, furthermore, these are of such wide distribution that they can be obtained from any dealer.

Climbing Roses

The first four are of the large, semi-double sorts and the two others have small blooms in clusters. All are fairly resistant to mildew and retain their foliage late into the winter.

American Pillar. Red.
Dr. W. Van Fleet. Light pink.
Excelsa. Crimson.
Paul's Scarlet Climber. Deep crimson.
Silver Moon. White.
Source d'Or. Yellow.

Hybrid Perpetuals

The following are what I consider the best six all-round varieties of Hybrid Perpetuals for this latitude:

Frau Karl Druschki. White.
George Arends. Pink.
J. B. Clark. Crimson.
Ludwig Möller. Yellow but opening white.
Paul Neyron. Pink. (The largest of all roses.)
Ulrich Brunner. Deep velvety crimson.

Hybrid Teas

Our climate is so hot and dry in summer that Hybrid Tea roses, still in the bud in the early morning, are fully open by noon, and, if of the semi-single type, are fading by evening; so I concluded that in naming

the best twelve Hybrid Tea roses for Indiana I would leave out the single varieties of Ophelia and Killarney type and list only the full double sorts more resistant to our torrid sun.

Columbia. Rose-pink.

Etoile de France. Crimson.

General MacArthur. Red.

General-Superior Arnold Janssen. Red.

Hoosier Beauty. Crimson-maroon.

Kaiserin Auguste Victoria. Greenish,
opening white.

Lady Alice Stanley. Coral-rose.

Lady Ashtown. Pale pink.

Mrs. Aaron Ward. Yellow.

Pink Radiance. Pink.

Premier. Dark pink.

Red Radiance. Red.

With a bed of these twelve varieties one should have a profusion of handsome roses from spring until late fall. The foliage is handsome and their habit of growth particularly adapted to our climate and soil, provided budded plants are secured.



Viridiflora, or Green Rose. Petals appear of the same color and substance as the foliage. It is a consistent bloomer and under glass will produce green roses in season for St. Patrick's Day celebration.



Among the pink Hybrid Perpetual Roses, MRS. JOHN LAING stands well in the lead,—not so large as Paul Neyron, but more free in bloom, with excellent form, clear color and rich fragrance. GEORGE ARENDS also is worth noting as in the same class with the above and with even finer form.

Roses for Chicago and Vicinity

For that important section of our country contiguous to our second largest city, probably no better informed authority on horticulture could be found than W. C. Egan, of Highland Park, Ill. The author has many times enjoyed the courtesy of the "North Shore" gardens—skirting Lake Michigan. On the first visit now many years ago he was amazed to realize how the winters had killed back to within a foot of the ground roses as hardy as Crimson Rambler. Hybrid Teas, such as noted below, there require ample winter protection (see note below). We can vouch for the thoroughgoing experiments on which are based the following recommendations by the host of "Egandale." He writes:

Any Hybrid Tea rose that will bloom cheerfully for eight summers and then go into winter quarters in a robust condition, promising future usefulness, is worthy a place of honor in any garden. "Egandale" climate is not congenial to the requirements of the semi-tender forms, but the appended list includes those that were planted in the spring of 1915. During the summer of 1916 a careful count was taken of the number of blooms produced and the comparative number each plant furnished is given.

	Average No. of blooms		Average No. of blooms
Duchess of Wellington	30	Laurent Carle	19
Ecarlate	118	Lieutenant Chauré	21
Farbenkönigin	17	Mme. Caroline Testout	24
Florence Pemberton	30	Mme. Jules Bouché	16
General MacArthur	22	Mme. Leon Pain	23
Grossherzog Friedrich	44	Mrs. Aaron Ward	31
Gustav Grünerwald	23	Mrs. Arthur Robert Waddell	31
Killarney	52	Mrs. W. C. Egan (Count of 1921)	49
La Tosca	45	Ophelia	34
Lady Alice Stanley	23	Pharisaer	28
Lady Ashtown	34	Radiance	42
Lady Pirrie	20	Willowmere	21
Lady Ursula	30		

As a rule, climbers must be protected here, although roses of the hardiness of the Dorothy Perkins may stand some winters, as will the new climber and trailer, Max Graf. Dr. W. Van Fleet, Tausendschön, American Pillar, and Paul's Scarlet Climber do well under protection.



Spinosissima altaica. There is an indefinable charm and distinction about *Altaica* as she pertly peers at you with her single saucer-like flowers poised upon or half hidden in her foliage of dainty lace work.

Roses for Minneapolis and Vicinity

Here again we find a source of reliable information. It comes from Theodore Wirth, who is superintendent of the parks of Minneapolis where, for the great Northwest, he has recently completed planning and planting one of America's finest memorial avenues dedicated to the memory of her World War heroes. Mr. Wirth is also builder of the famous public rose-garden in Elizabeth Park, Hartford, Conn. The following recommendations from Mr. Wirth come as a result of actual tests in the rose-garden at Lyndale Park, Minn. Mr. Wirth writes:

I am sending you a list of the best and most reliable roses, according to the records of our Municipal Rose-Garden, certified to by our Standing Committee, which has judged the Rose-Garden from time to time during the summer. The varieties named are the very pick of our list of over 250 varieties. I would not hesitate to recommend them to anybody here in our locality.

Hybrid Perpetuals

Captain Hayward. Red.	Hugh Dickson. Red.
Clio. Pink.	J. B. Clark. Red.
Duke of Wellington. Dark red.	Magna Charta. Pink.
Frau Karl Druschki. White.	Mrs. John Laing. Pink.
General Jacqueminot. Red.	Paul Neyron. Pink.
George Arends. Pink.	Prince Camille de Rohan. Dark red.

Hybrid Teas

Colonel Leclerc. Pink.	Kaiserin Auguste Victoria. White.
Duchess of Wellington. Yellow.	La France. Pink.
Ecarlate. Red.	Lady Ashtown. Pink.
General-Superior Arnold Janssen. Red.	Mme. Caroline Testout. Pink.
George Dickson. Red.	Mrs. Aaron Ward. Yellow.
Gruss an Teplitz. Red.	Willowmere. Pink.

Climbing Roses

Crimson Rambler. Red.	Excelsa. Red.
Dorothy Perkins. Pink.	Hiawatha. Pink.
Dr. W. Van Fleet. Pink.	White Dorothy.

Polyanthas, or Baby Ramblers

Marie Pavic. White.	Orleans. Red.
Mrs. W. H. Cutbush. Pink.	

Roses for St. Louis and Vicinity

The Missouri Botanical Garden, at St. Louis, Mo., is probably without parallel in the central part of the United States as a generously equipped and well-conducted plant museum, laboratory, and experiment station.

For close to twenty-five years the author of the following lists has been conversant with the attitude of would-be rose-growers in the central Mississippi and Missouri valleys. Climatic conditions, including drought and extremes of heat and cold, have often discouraged the faint-hearted ones. An official list like the following will prove a guide and a helpful factor toward success. Wherever one lives, the right selection is of fundamental importance.

Director Moore stands behind Paul A. Kohl, floriculturist of the Missouri Botanical Garden, in the following recommendations:

A list of roses that can be depended upon for results in the Middle West, particularly the city of St. Louis and the immediate vicinity, is necessarily limited. The number of newer and better roses is constantly increasing, but only after being tried for a number of years can they be recommended for general use. To meet conditions of heat, drought, and smoke, and sometimes poor soil, is asking a great deal from a rose, and yet the following will give satisfaction if only a little care is given them.

The number of yellow roses is very limited, and the only good one, which is not a clear yellow, is Mrs. Arthur Robert Waddell. Duchess of Wellington, Harry Kirk, and Sunburst are finer roses with more substance, but do not give that general garden service of Mrs. Waddell.

The list of red roses is better and the first to mention is Gruss an Teplitz. Its keeping qualities as a cut rose and its weak stems are its drawbacks. However, its hardiness, profusion of bloom, and good foliage almost overshadow its failings. Other good red roses are:

Captain Hayward
General MacArthur

Laurent Carle
Red Radiance

The pink section has the greatest number of good roses for this region. They are:

Florence Pemberton
George Arends
Hermosa
Jonkheer J. L. Mock
La France

La Tosca
Lady Alice Stanley
Lady Ursula
Mme. Leon Pain
Radiance



This shows how "York and Lancaster" may be used

The number of white roses is very limited. Frau Karl Druschki is a good spring and fall bloomer and a rose worthy of a place in any garden. Among the Hybrid Teas, Souvenir du President Carnot can be recommended, but it is not a pure white.

A few good climbing roses are:

American Pillar
Dr. W. Van Fleet

Excelsa
Silver Moon

A list limited to twelve kinds of roses should contain:

Climbers

American Pillar
Excelsa

Silver Moon

Hybrid Teas

General MacArthur
Gruss an Teplitz
Lady Alice Stanley

Mme. Leon Pain
Mrs. A. R. Waddell
Radiance

Hybrid Perpetuals

Captain Hayward

Frau Karl Druschki

Polyanthas

Orleans Rose or Katharina Zeimet for hedge effect.

When the selection is limited to twenty-four, those noted above are the best.

PAUL A. KOHL,

Floriculturist to the Missouri Botanical Garden

Roses for the Pacific Northwest

Portland, Tacoma, and Seattle lie in one of the most favored rose sections of America, climatically regarded. These and other famous centers are rapidly developing among their people both the love for and knowledge of roses. Jesse A. Currey, Executive Committee member of the American Rose Society for the Pacific Northwest, commends the following as having proved superior to others in his section of the country.

Best Twelve Roses for General Cultivation

Columbia	Los Angeles
Frau Karl Druschki	Mme. Caroline Testout
General MacArthur	Mme. Jules Bouché
George Arends	Mme. Melanie Soupert
Grange Colomb	Ophelia
Hugh Dickson	Ulrich Brunner

Best Six Climbing or Rambling Roses

American Pillar	Gloire de Dijon
Climbing Mme. Caroline Testout	Mary Wallace
Dorothy Perkins	Mme. Alfred Carriere

Best Six Red Roses for General Cultivation

General MacArthur	H. V. Machin
Hadley	J. B. Clark
Hugh Dickson	Ulrich Brunner

Best Six Cream and White Roses for General Cultivation

British Queen	Grange Colombe
Florence Pemberton	Mme. Jules Bouché
Frau Karl Druschki	Mrs. Foley-Hobbs

Best Six Pink Roses for General Cultivation

Columbia	Miss Kate Moulton
Joseph Hill	Mme. Caroline Testout
Lady Ashtown	Ophelia

Best Six Yellow Roses for General Cultivation

Constance	Mrs. Aaron Ward
Duchess of Wellington	Souv. de Claudius Pernet
Mme. Mélanie Soupert	Sunburst

Mr. Currey also adds the following kinds as too good to overlook:

Betty
Captain Hayward
Cécile Brunner
Charles E. Shea
Felicity
Golden Spray
Irish Elegance
Jonkheer J. L. Mock
Lady Hillingdon
Lady Roberts
Margaret Dickson Hamill

May Martin
Mrs. Dunlop-Best
Mrs. E. G. Hill
Mrs. Walter T. Sumner
Perle d'Or
Premier
Red Radiance
Richmond
Rose Marie
Yvonne Vacherot

Climbers

Bonnie Prince
Dr. W. Van Fleet
Excelsa

Gainsborough
Mrs. George C. Thomas
William Allen Richardson



Between street curb and sidewalk in Portland, Ore.

Roses for Seattle and Vicinity

The Seattle Rose Society has recently taken a vote which it is a pleasure to be able to publish here because Seattle is perhaps the key city in that very important rose section in the state of Washington contiguous to Puget Sound.

Mr. H. L. Collier, president of the Seattle Rose Society, writes, March 21, 1923:

The Seattle Rose Society sent out questionnaires to 250 rose fanciers in Seattle and other west-side cities, requesting the names of the best ten garden roses, named in order of preference, and received 111 replies. In all, 137 different roses were named.

The result of the tabulation is shown below with the names arranged in order up to the fiftieth choice.

- | | |
|-------------------------------|------------------------------|
| 1 General MacArthur | 33 Lyon Rose |
| 2 Mme. Edouard Herriot | 34 Wm. R. Smith |
| 3 Duchess of Wellington | 35 Mme. Butterfly |
| 4 Hoosier Beauty | 36 Mme. Ravary |
| 5 Lady Hillingdon | 37 Mrs. Herbert Stevens |
| 6 Ophelia | 38 Rose Marie |
| 7 Golden Emblem | 39 Dorothy Page-Roberts |
| 8 Mme. Melanie Soupert | 40 { Betty |
| 9 Mme. Caroline Testout | { Richmond |
| 10 Frau Karl Druschki | 41 { Cheerful |
| 11 Los Angeles | { Isobel |
| 12 Lady Pirrie | 42 { Mrs. John Laing |
| 13 Joseph Hill | { Gruss an Teplitz |
| 14 Sunburst | { Cécile Brunner |
| 15 Mme. Abel Chatenay | 43 { Mme. Alfred Carrière |
| 16 Irish Elegance | { Wm. F. Dreer |
| 17 Mrs. Aaron Ward | { Red-Letter Day |
| 18 K. of K. | 44 { Rayon d'Or |
| 19 Hugh Dickson | { Lady Alice Stanley |
| 20 Winnie Davis | { Mme. Charles Lutaud |
| 21 Columbia | 45 Mrs. Fred'k W. Vanderbilt |
| 22 Irish Elegance | 46 { Mrs. Dunlop Best |
| 23 La France | { Avoca |
| 24 Mrs. Arthur Robert Waddell | 47 Mrs. Alfred Tate |
| 25 Juliet | 48 Kaiserin Auguste Victoria |
| 26 Constance | { Maman Cochet |
| 27 Ulrich Brunner | 49 { Grace Molyneux |
| 28 George Dickson | { National Emblem |
| 29 Mrs. Wemyss Quin | { Heinrich Münch |
| 30 Old Gold | 50 { Marquise de Sinety |
| 31 Dr. W. Van Fleet | { Gainsborough |
| 32 Prince de Bulgarie | { My Maryland |



The list of Hardy Climbing Roses has been wonderfully enriched during the last fifteen years by the addition of such varieties as DOROTHY PERKINS (as pictured above); also White Dorothy and Excelsa, or Red Dorothy.

Their long, willowy branches, easily trained over almost any object, will, with reasonable care and nourishment, often attain a length of 20 feet in one season.

CHAPTER XII

EXTENDING THE DOMINION OF THE ROSE

"Go Rose, flower of flowers."

—FROM THE ANCIENT LATIN.

IN HIS book, "The Cultivated Man," Charles W. Eliot says: "A brook, a hedge-row, or a garden is an inexhaustible teacher of wonder, reverence, and love."

Another one of "America's noblemen," G. A. Parker*, with exquisite feeling, thus portrays the possible influence of the rose on the lives of men, when, in telling of the rose-garden at Elizabeth Park, he says:

"I have come to think of beauty as the love-letter of the Creator, through which He is wooing us unto Himself; for beauty is spiritual, and not physical.

"A love-letter is a message into which the sender puts a part of his very self, and the one who receives it, in some mysterious way, weaves it into a part of his very life. It matters little what words are used or how the message is sent, providing it becomes a part of the sender and of the receiver. Surely the Creator uses a most beautiful form when He avails Himself of the roses to convey His message."

Among the real rose-lovers now scattered widely over our great country, it is difficult to conceive of a finer loyalty than already exists toward the flower of their choice. Such devotion as theirs is bearing fruit. Better roses in their gardens are arousing more abundant admiration on the part of neighbors. This results in more "recruits." They organize. The members help each other, and more and more each one comes to know the joy of growing one's own roses. This is just what has been going on in many sections of our great country. The delights of rose-growing have been revealed to vastly increasing numbers of amateurs within the past few years. The garden magazines have helped. The garden clubs have been a prominent factor.

There are, perhaps, half a dozen rose men lecturing† on this fascinating subject and forwarding the good work. All have

*"American Rose Annual," 1916, pages 71, 72.

†A list of such will be furnished on request.—ED.

helped, and the combined efforts of these various agencies are beginning to bloom into activities of great promise.

The American Rose Society most of all is, as its motto suggests, increasing the general interest in and improving the standard of excellence of the rose for all people. Whether you grow one rose or acres of them, you will find it delightfully profitable to join this fellowship of rose folks. It is distinctly a mutual benefit organization syndicated to obtain, principally from its members, and to distribute among them, anything that will prove helpful. Its activities have been, and at present lie, along the following lines:

1. *Establishing Rose-Test Gardens* throughout the country in which all attainable varieties are given an equal chance so that gardeners everywhere may select those best suited to their own particular locations.

2. *Encouraging the Establishment of Municipal or Community Rose-Show Gardens* for the greater enjoyment of a vastly larger number of people at a very small cost per person so served.

3. *Stimulating the Production of Truly American Varieties* for widespread culture in our climate which differs radically from that of Europe whence, until very recently, came 95 per cent of the roses in American commerce.

4. *The Publication in the Annual Handbook* of the names of all members, arranged not only alphabetically but also geographically by towns, so that all the registered rose folks can readily be found in any locality throughout 48 states and 26 foreign countries.*

5. *Providing Free Service for the Rose-Grower* through an advisory committee of recognized authorities who cheerfully answer in detail inquiries sent in by any member of the Society.

6. *Stimulating the Holding of Exhibitions* in every available rose center and offering gold, silver, and bronze medals or certificates of merit for prize exhibits.

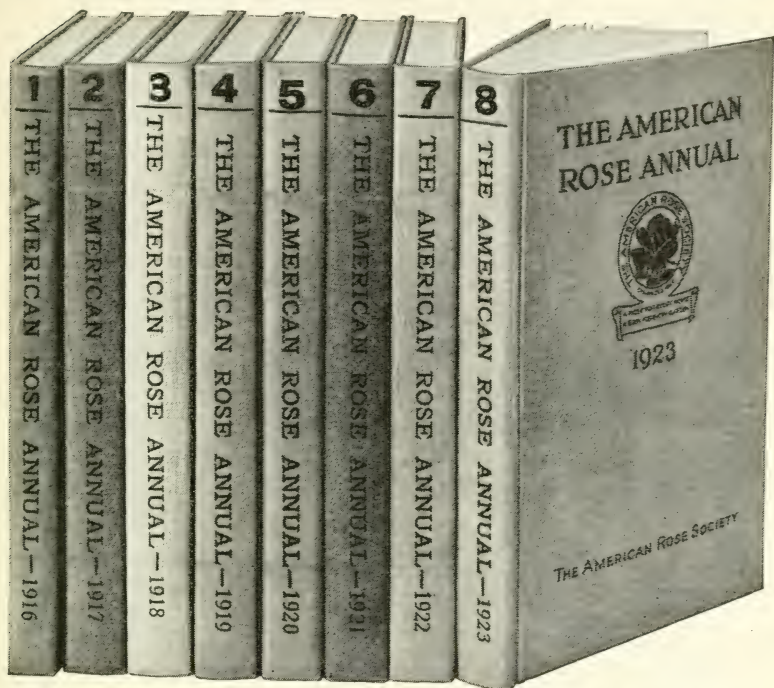
7. *The Committee of Fifteen on Commercial Cut-Rose Interests* manages the wonderful shows of the roses professionally produced under glass and otherwise presides over the interests of the cut-rose.

8. *Confusion and Uncertainty* have been removed from the nomenclature of the rose and provision made for the regular registration of all new varieties without duplication of existing titles.

9. *Coöperating with the Department of Agriculture* in the distribution of new roses hybridized by the late Dr. W. Van Fleet. Mary Wallace is the first of these roses to be named for distribution.

10. *Arranging Rose Pilgrimages to Notable Gardens*, public or private, wherever are to be had the only three requisites: leadership and pilgrims and one or more rose-gardens.

*Membership in 1922 was over 2,800, and in 1923 is expected to exceed 3,000.



These are obtainable by or through members of the American Rose Society

11. *Recording Rose Progress and Experience* by publishing each year in the "American Rose Annual" a comprehensive and authoritative digest of the latest findings of import to the rose-lover. Thus, eight of these have been edited by J. Horace McFarland, president of the American Civic Association.

12. *Taking a National Vote among Members* each year to find the most popular roses sectionally and collectively. The results, of course, are published and sent to all members. (See result of 1922 vote, page 39.)

The successful person in any line is usually found to be one prompt to profit by the experiences of others. Membership in the American Rose Society may well be encouraged because it frequently offers just such opportunities. The annual membership fee at present is \$3; life membership, \$50.

For further information or enrollment, address: Author "How to Grow Roses," West Grove, Pa.



Municipal Rose-Garden, Cleveland, Ohio, when one year old

Municipal Rose-Gardens

Hartford, Conn., was the pioneer for America; and she builded well. Starting in 1904, in Elizabeth Park, there were laid out $1\frac{1}{4}$ acres. This the author visited first upon his return from a tour among the more prominent rose-gardens in England, Ireland, Holland, Germany, and France. While delighted with the cultural success and magnificent show of varieties, there seemed in the *ensemble* much to be desired in the matter of treatment and arrangement. This will probably be true of most of the test-gardens referred to in the previous section, because beauty of landscape effect is not the first thing sought for in a rose-garden made primarily for test purposes, although the more there is of grace and beauty, of charm and enchantment, by reason of the arrangement, of course, the better it is.

But Hartford led the way, and nobly continues to render this nation, at least the northeastern part of it, a great service. She showed that even a little public rose-garden, well done, begets enthusiastic public appreciation. Mr. G. A. Parker, Superintendent of Parks, of Hartford, reports 116,000 people having visited this rose-garden in one year. There are in it

three hundred different varieties of roses and about fifteen hundred separate plants, and the cost, both for construction and maintenance, in eleven years has been \$0.0173 per visitor. But as for its influence upon, and value to, the people who have come to see it, no money estimates can be made. If any reader feels inclined to doubt this last statement, permit us to suggest that he submit his feelings to the test of a visit.

There are many American cities which have roses in their parks, and these cities are extending their plantings; but as yet only a limited number have definitely set apart, and regularly arranged for, a real rose-garden.

If any of our readers have the opportunity to visit Portland, Ore., certainly one of the sights of that city of wonderful promise is the municipal rose-garden. It is larger, perhaps, than that of Hartford, a sunken garden with rose-covered terraces; a fountain-centered system of walks and a large amount of growth; and, as nearly every rose-lover knows, a gratifyingly long season of bloom. It is, we believe, true of Portland, as of no other city, that the commercial men have long realized the value of the rose and its exploitation as an indirect, though very definite, means of spreading world-wide the fame of that rose-favored corner of the earth. This is a reason why there is enthusiasm in Portland back of the conception to establish in another part of the city another municipal rose-garden that shall outclass any other in America. And why should Portland *not do so*? The author would enjoy telling his readers much more about the magnificent hedges of roses in Portland; of the great annual rose-festivals, with electrical displays; of many different parades; of automobiles; of the Royal Rosarians and their Queen of the Roses with her attendants—all doing homage to the rose.

In 1919, at Cleveland, Ohio, for the first time there appeared, on display, a most creditable municipal rose-garden, its success being due in large measure, doubtless, to the able hand of their superintendent of parks. No climbing roses surrounded it when the author enjoyed its rich June bloom, but the varieties had been well chosen for that locality, and arranged in good taste. All were bush roses and were grouped in beds, with an arrangement of walks making the annually

recurring display easily accessible to large numbers of people. Cleveland has made a splendid start.

Syracuse, N. Y., has now the beginning of a most creditable municipal rose-garden, the result of a demand made by the citizens, promoted by an energetic rose society and its indefatigable president, Rev. E. M. Mills, D.D. Long life to him!

Now, too, we are happy to report the establishment of a real rose-garden in the Bronx Park system of New York City. The New York Horticultural Society and affiliated organizations have carried out creditably a rose-planting that promises to rejoice the hearts of countless thousands of people. Let us all hope that it may prove easily accessible to those who most need the inspiration and pleasure which such a garden is so well calculated to furnish.

And now the Brooklyn Rose-Garden is well on the way to rendering a similar service, and excellent progress is being made.

There is happy augury for the folks about Boston in the announcement by Mayor Curley that funds are now available and will be used for the extension of Franklin Park. The plans call for a large circular rose-garden which, if executed, is bound to bring happiness to the hearts of thousands.



Photographed by the author in M. Gravereaux's garden at L'Hay
(See also page 66)

The pioneers who thus have blazed the way have so thoroughly proved that a well-kept rose-garden in any park system is of unsurpassed value when judged by the number of people per acre found to use it, that it is gratifying to note here that the leading organization of those responsible for the promotion of our park systems has taken the official action as indicated below.

At the meeting of the American Institute of Park Executives held in Minneapolis, August 19, 1922, attended on behalf of the American Rose Society by their president, there was full discussion of this subject, ending in the unanimous passage of the following resolution:

WHEREAS, Experience with municipal rose-gardens has proved their possibility and popularity far in excess of proportionate cost, therefore be it

Resolved, That we recommend that every park board in affiliation with us, which has not already adopted this standard, shall give earnest consideration to the development of a rose-garden as a unit of recognized importance in their system.



View in the Bagatelle, the Municipal
Rose-Garden of Paris

CHAPTER XIII

HYBRIDIZING

"The desert shall rejoice and blossom as the rose."

—ISAIAH

THIS book attempts in no way to cover the subject of hybridizing, save to refer to some sources of information regarding a work that calls for long-sustained attention, and almost limitless patience, with no assurance as to results. Amateurs, as well as professional rose-growers, have made valuable contributions to our lists of roses, and it is to be hoped that the future will offer more adequate recompense to the successful breeder of roses than has been the case in the past.

Surely more amateur rose-growers of our country would enter the field of the hybridizer if they knew the situation: (1) That in spite of the two hundred or more new roses introduced each year, comparatively few of them are altogether happy in our climate; (2) that much of the past work of hybridizers has been confined to a comparatively small number of species, leaving as yet untried a still larger number of other species well adapted to our North Temperate Zone; and (3) with these vast stretches of tempting possibilities there is coupled the fact that the field in question is all but unoccupied, leaving the prizes of accomplishment free for all comers.

Every hybridizer will be interested in the articles by Dr. White and Dr. Van Fleet in the "American Rose Annual" for 1916; also in the "Stammbuch der Edelrosen," by Dr. G. Kruger. The edition of this work, published in 1906, at Trier, Germany, contains a most complete listing of the hybridized roses, including parentage, hybridizer, and date of issue.

The chapter on "Hybridizing" by the Rev. Joseph H. Pemberton, in his book, "Roses," also Messrs. Wilson's chart, "Historical and Botanical Relationships of the Modern Rose," will be found most helpful.

It is fitting here to note the splendid progress made in hybridizing roses for forcing purposes, by E. G. Hill, John Cook, Alexander Montgomery, and others. Reference to page 163 reveals that over half the varieties in active use today were not in existence ten years ago.

In the field of the garden rose, America honors the hybridizing record of Dr. W. Van Fleet and calls earnestly for more master hybridizers to carry forward his work.



The beautiful PERSIAN YELLOW Rose is commended highly, especially to those living in the colder sections of our country.

Its rich coloring and hardiness, combined with its early season of bloom and fragrant young foliage, give it a value among Roses comparable to the value of gold among metals.

A cousin to this Rose is HARISON'S YELLOW; like it in color but less double in bloom and more able to care for itself wherever planted. Both bloom earlier than even the Rugosas though not so early as HUGONIS.

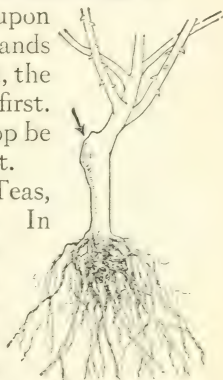
CHAPTER XIV

OWN-ROOT, AND BUDDED OR GRAFTED ROSES

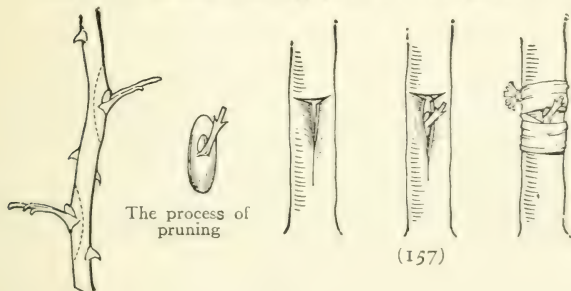
*"You see, sweet maid, we marry
A gentler scion to the wilder stock,
And make conceive a bark of baser kind,
By bud of nobler race; this is an art
Which does mend nature, change it rather, but
The art itself is nature."*—SHAKESPEARE

EVERY rose-grower should learn the difference. In a budded or grafted rose, the top of a good flowering variety has been joined and made to grow upon the root of a "wild" rose. An own-root rose stands on its own feet, so that, if the top be winter-killed, the new growth from the root will bloom true as at first. Not so with the budded or grafted rose. If the top be killed, the "wild" root is worthless; throw it out.

Some types, especially some of the Hybrid Teas, when on their own roots produce but poorly. In order to obtain vigorous growth and luxuriant bloom, such kinds are budded or grafted upon the stock of a strong-growing rose. Multiflora, Canina, Manetti, and other stocks are used for this purpose. When planting own-root roses, set in the soil a trifle deeper than the stain of the soil on the stem indicates it grew before. *When planting budded or grafted roses, set with the joint or union of top and root an inch below the surface of the soil, and watch for suckers.* If there appears any growth originating below the union, dig away the soil and cut it off close up to the stem; otherwise it may grow up and crowd out the flower-bearing part of the plant. Save for the espe-

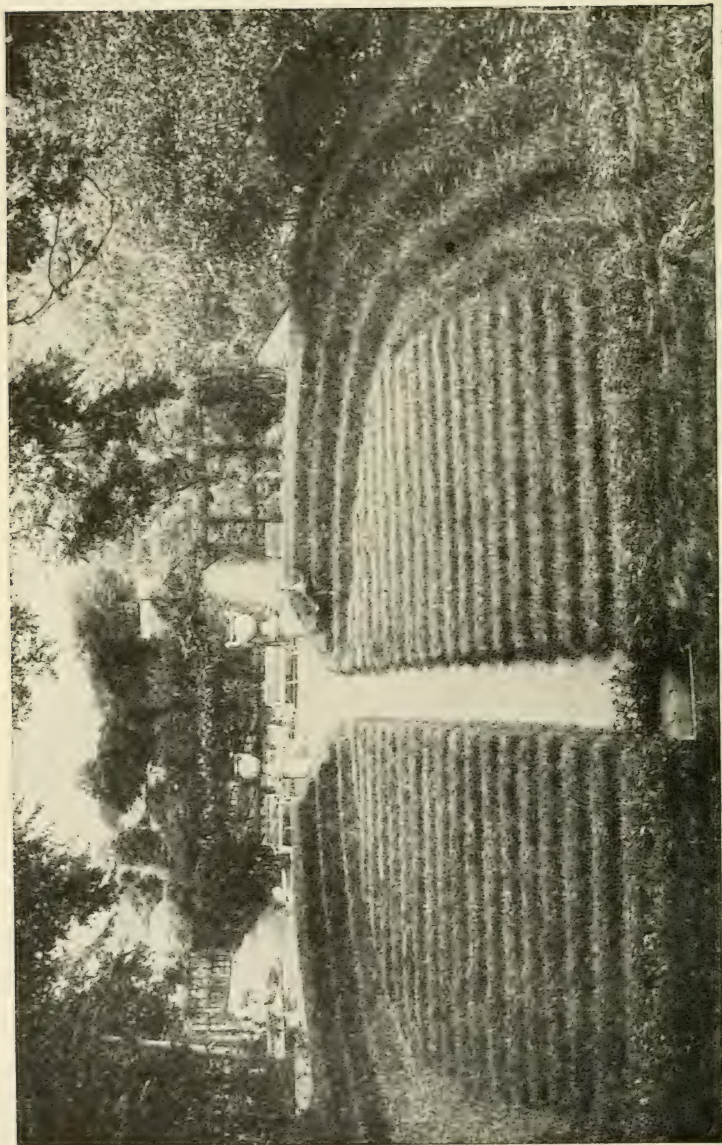


A budded rose may be distinguished from the own-root by knot-formation of the former. See arrow.



The process of pruning

cially vigorous varieties, budded roses thrive best in the North. In the South most varieties prosper on their own roots.



Open-Air Theater in Roseraie de l'Hay, intended for the representation of works devoted to the rose. (See page 14.)

CHAPTER XV

HOW TO PRESERVE FRAGRANT MEMORIES

*"You may break you may shatter the vase if you will
But the scent of the Roses will hang round it still."*

—THOMAS MOORE

Attar of Roses

THE reader will notice on another page a short account of a visit made to that most beautiful rose-garden south of Paris, the Roseraie de l'Hay. Many chapters might be written of this little paradise about which clusters so much of interest to a rose-lover. But there is in that wonderful garden a quaint thatched "summer-house," as we in America might call it, rose-embowered. On the occasion of the author's visit, there was at work in the little cottage a white-aproned chemist with large-sized retort, test-tubes, spirit-lamps, and other appliances. The rose-petals which had been gathered in the garden were being reduced to essence or attar of roses. M. Gravereaux improved the method of extracting the oils, and, furthermore, proved by extensive experiments that certain perpetual-flowering roses, like Mme. Caroline Testout, are capable of producing a much larger amount of the essence than the Damask and Centifolia roses heretofore largely used.

He cross-hybridized especially the Rugosas producing the deliciously fragrant Roseraie de l'Hay and later Rose a Parfum de l'Hay. All such varieties were assembled in one garden called "The Collection of Perfumed Roses."

The method employed by M. Gravereaux was superior to that of the Bulgarians, Persians, and Algerians, whose apparatus is most primitive, as their formula which follows, will indicate: The rose-petals must be distilled as they are picked, otherwise much of their odor will be lost. They are brought right to the stills, which are made of copper, and there mixed with only water, the quality of which is said considerably to influence the essence distilled. After the mixture has been twice boiled down to one-eighth or one-tenth its original volume, it is allowed to cool, and is set in open bowls at a constant temperature. Gradually the essence rises and swims on the surface in yellowish patches, which are skimmed off with a mother-of-pearl spoon

This operation, usually falling upon the eldest member of the family, is carried out with a solemnity befitting its importance. What this must mean to the peasants is better understood when we realize how feather-light rose-petals are, and that 150 pounds (2,400 ounces) of them ordinarily yield less than one ounce of the essence of the rose.

It is not to be marveled at, therefore, that it is expensive, not alone for the above reason, but also because of its importance in the fabrication of the finest perfumes. It has, furthermore, the valuable quality of increasing and fixing other perfumes, just as the rose itself has the quality of developing in those who work with it qualities of fine moral character.

Rose-Beads

For the following formula the author is indebted to a good friend of his from New York State, whose experience in making rose-beads is far more extensive than his own.

"Gather the petals of roses—even newly fallen ones will do—till you have, say, half a peck. Grind these through a meat-chopper till they become pulp. In order to have the beads jet-black when finished, place this pulp in an iron pan, or, lacking that, mix in a teaspoonful of ground copperas (ferrous sulphate), and stir thoroughly; the mixture will soon become brown. Set it now in the sun or a warm oven till it gets black. After this, put all through the meat-chopper again till it becomes like putty, and then form the beads. They can be made any shape you like,—round, square, hexagonal, etc.,—but form them twice the size you wish to have them when finished. Rolling them into little balls with the hand will make smooth beads. If you wish them figured, the butt-end of a steel writing-pen is a convenient tool, to be used, of course, when the beads are still soft. When properly formed, transfix them to a board with a pin, then keep them hot and dry, and in two or three days they will become small and hard, and may be strung through the hole left when the pin is removed."

A European authority gives us a slightly different formula, and recommends using a mortar instead of the more prosaic and modern meat-chopper.

“Freshly gathered rose-petals are beaten into a pulp and then dried, but before becoming completely dry, rose-water is added and they are again beaten and dried, the operation being repeated till the pulp has become very smooth. Then the desired shape is given and they are perforated in order to thread them, and so a kind of bead is formed, which is dried. When they have become very hard, they are smoothed and polished, after which they are rubbed with oil-of-roses in order to give them more perfume and gloss. If a brass mortar be used, the pulp takes a deep black color, through the action on the metal of the gallic acid contained in the roses. On the other hand, if a marble mortar be used, blue and red and other colored beads can be manufactured, according to the coloring materials employed. The black beads are most highly prized. They have been manufactured principally at Adrianople, Smyrna, and Constantinople.”

The Red Rose Church at Manheim

We know of no more unique ceremony in America than Manheim's "Feast of Roses." In 1750, Baron Heinrich Wilhelm Stiegel, coming from Germany, settled in Lancaster County, Pennsylvania, and founded the little town of Manheim. He prospered in business and later deeded to the Lutheran congregation (which he organized in 1769) a plot of ground for the erection of a house of worship with the following stipulation: *"yielding and paying therefor at the said town of Manheim, in the month of June, yearly forever after, the rent of ONE RED ROSE, if the same shall be lawfully demanded."*

And now each year, with appropriate exercises, the congregation of the Manheim Lutheran Church pays to the heirs of Baron Stiegel the unique ground-rent of "one red rose," and each year recalls the memory of a man who, though "dying in poverty, had yet left the noblest of all memorials, the love, reverence, and gratitude of a community whose industry he had stimulated, whose ideals he had fostered, for whose spiritual welfare he had made permanent provision." (Published with the permission of Rev. A. E. Cooper, who was pastor of the Red Rose Church when this statement was first issued.)



"A rose to the living is more than sumptuous wreaths to the dead."
—NIXON WATERMAN.

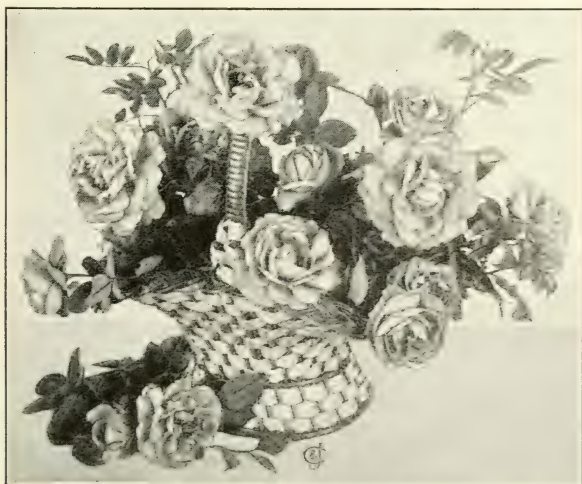
CHAPTER XVI

FOR FORCING UNDER GLASS OR FOR INDOORS

"..... whispers sweet as roses' breath."

—JAMES MAURICE THOMPSON

THESE varieties are grown by professional florists in glass-houses where they can with nicety regulate the supply of heat and moisture, to produce the long-stemmed beauties seen in florists' windows. While a greenhouse or conservatory is a wonderful help, indeed essential for best results, some people have these same roses during the winter, blooming beautifully in their homes by growing them where they have plenty of sunlight and air. A thing to remember is that coal-gas is injurious to plant-life, therefore must be carefully guarded against. These varieties are: American Beauty, American Legion, Citronella, Columbia, Commonwealth, Double White Killarney, Francis Scott Key, Golden Ophelia, Hadley, Hill's America, Kaiserin Auguste Victoria, Mlle. Cécile Brunner, Mme. Butterfly, Mrs. Aaron Ward, Mrs. W. G. Harding, Ophelia, Pilgrim, Premier, Richmond, Souv. de Claudius Pernet, and Sunburst.



A tasteful arrangement of Ulrich Brunner roses

APPENDIX A

THE ROSE-LOVER'S CALENDAR OF OPERATIONS

"Gather ye rosebuds while ye may."

—ROBERT HERRICK.

THESE dates will be found relatively correct for the average season in the latitude of Philadelphia. If you live north or south, make the usual allowance of about four days for every 100 miles of latitude. Comparative altitude must also be taken into consideration. The seasons vary; for example, the ground may be in good condition and ready for digging as much as three weeks earlier one year than it will be the following spring.

March 15.—Such hardy roses as are already planted should now be pruned.

March 25 to 30.—As soon as the ground can be well worked, plant new hardy roses which are to be had dormant. Prune these even more closely than older established bushes.

April 10.—Less hardy roses, including the everblooming class, should be pruned. Begin to remove the winter protection as the increasing heat of the sun permits.

April 15.—As a preventive measure against mildew and other fungoid contagious diseases, it pays at this time to spray with bordeaux mixture all your rose plants as well as near-by fruit trees and grape-vines.

April 25 to 30.—Finish uncovering and pruning your roses. Plant new ones (now or until the middle of May). A slight shading of these from the sun for a few days will prove an advantage.

May 1 to 10.—As soon as plants are well set with foliage, a spraying with a solution of nicotine or sulpho-tobacco soap will act as a preventive against aphides (green fly).

May 20.—As soon as buds begin to swell, weak manure-water may be applied to the plants. Spray again to kill off the aphides, otherwise they will multiply with amazing speed.

May 25.—Now starts the season's procession of bloom, led by Hugonis, then the sturdy Rugosas and the yellow Briar roses. Start feeding the Hybrid Perpetual roses with liquid manure.

June 1.—With this month we see the true glory of the "Feast of Roses."

June 5.—Watch for the rose beetle and rose slug, and spray every ten days for three weeks with a half pound of arsenate of lead to ten gallons of water.

June 10.—Begin to nourish the Teas and Hybrid Teas with liquid manure (page 57). You'll soon see the result.

June 20 to 30.—Now the Teas, Hybrid Teas, and Climbers begin blooming in abundance. Cut your blossoms freely. Look out for mildew and apply the remedy.

July 1.—Keep the soil well stirred. A dust mulch at this season is important. (See also page 77.)

July 4.—Gather all the flowers you can; it is not best for the plants to have them die on the bushes. You should now be reaping a full harvest from the Teas, Hybrid Teas, etc.

July 10.—From now till autumn keep a sharp lookout for signs of fungoid troubles—such as (1) mildew, (2) black-spot, or (3) yellow-leaf, and apply bordeaux mixture or sulphur arsenate dust mixture. If any aphides appear, use "Black-Leaf 40."

July 15.—Thin out the old canes and trim back all Multifloras and other Climbers noted under chapter on pruning.

July 20.—Now or earlier mulch your roses with grass-cuttings, old manure, leaves, sawdust, or peat-moss.

August 30.—Teas and Hybrid Teas bring forth their "Fall Flower Show." As soon as the buds form, remember that "StimUplanT" or manure-water applied to the roots will help them to produce the blossoms you'll be proud of.

September 10.—Some Hybrid Perpetuals bloom a second time.

October 15.—Make ready your new beds for next year.

November 15.—After the first frost, begin covering the stems of your roses (page 77), and, soon after this, complete the protecting of the more tender kinds.

Thanksgiving Day.—As soon as the ground has frozen, all should be safely nestled in their winter beds.

WHEN YOUR ROSES ARE UNDER THE SNOW

December.—Read Dean Hole's "A Book About Roses." (See page 177.)

January.—Send for the catalogues of a few reliable rose-growers.

February.—Order from list of "Best Roses for America."



Minneapolis Municipal Rose-Garden

APPENDIX B

ROSE SYNONYMS

*"What's in a name? That which we call a rose
By any other name would smell as sweet."*

—SHAKESPEARE

A FEW years ago a certain lawyer in this country placed rose orders with four different firms. When his roses bloomed he had four roses exactly alike, though every one of the four had been sold him under a different name. Three of the four firms had rechristened the same variety. But public opinion, backed by the work of the American Rose Society, will no longer countenance such practice, though some are still so unscrupulous or careless as to allow their offerings to masquerade under false and spurious titles, thus deceiving such part of the public as are gullible, and bringing their craft, as well as themselves, under the shadow of disrepute. Any such firm is capable of making much worse substitutions when filling your order. It is safest, therefore, to stay away from them entirely.

On the other hand, there is no attempt to deceive in the practice of giving to a new rose an attractive title, so long as its difficult foreign name is kept attached. In this way its identity is clearly maintained. This, indeed, explains the origin of most synonyms.

Again, for example, there are nearly half a dozen roses that might not improperly pass muster as *a* Red Baby Rambler, but there is only one, however, as noted below, that is officially recognized, by reason of priority, as *the* Red Baby Rambler.

Splendid strides have been made recently to set up and maintain reliable standards of rose nomenclature in the work of the American Joint Committee on Horticultural Nomenclature,* about to publish the new Official Catalogue of Standardized Plant Names; and the American Rose Society has agreed to work in harmony with the International Bureau for the Registration of Horticultural Novelties, with headquarters in France.

*A copy of this monumental work should be in every leading library. Address the Secretary, HARLAN P. KELSEY, Salem, Mass.

Anna de Diesbach	HP.	Gloire de Paris
Baby Dorothy, Pink	P.	Maman Levavasseur
Baby Rambler, Pink	P.	Maman Levavasseur
Baby Rambler, Red	P.	Mme. Norbert Levavasseur
Baby Rambler, White	P.	Katharina Zeimet
Baby Rambler, Yellow	P.	Etoile de Mai
Baby Tausendschön	P.	Louise Walter
Baby Tausendschön	P.	Echo
Ball of Snow	HP.	Perle des Blanchés
Dorothy Dennison	W.	Lady Godiva
Dorothy Perkins	HW.	Lady Gay
Dorothy Perkins, Red	HW.	Excelsa
Dutch Beauty	HT.	Veluwezoom
Excelsa	HW.	Poughkeepsie
Green Rose	C.	Viridiflora
Killarney, Striped	HT.	Spectacular
Killarney, Orange	HT.	Duchess of Wellington
La France, Red	HT.	Duchess of Albany
La France, Striped	HT.	Mme. Angélique Veyssset
La France, White	HT.	Augustine Guinoisseau
La Reine des Neiges	HP.	Frau Karl Druschki
Magnolia Rose	T.	Devoniensis
Maman Cochet, Yellow	HT.	Mme. Dérépas-Matrat
Maman Levavasseur	P.	Baby Dorothy
Mignon	P.	Mlle. Cécile Brunner
Mrs. W. H. Cutbush	P.	Mrs. Taft
Mrs. W. J. Grant	HT.	Belle Siebrecht
Prima Donna	HT.	Mme. P. Euler
Prince Camille de Rohan	HP.	La Rosière
Queen, The	T.	Souv. de S. A. Prince
Rambler, Golden	N.	Alister Stella Gray
Rambler, Pink	Mult.	Euphrosyne
Rambler, White	Mult.	Thalia
Rambler, Yellow	Mult.	Aglaia
Sweetheart	P.	Mlle. Cécile Brunner
Thousand Beauties	Mult.	Tausendschön
Tip-Top	P.	Baby Doll
Virginia R. Coxé	HT.	Gruss an Teplitz
White American Beauty	HP.	Frau Karl Druschki
Wm. R. Smith	T.	Charles Dingee
Wm. R. Smith	T.	Jeannette Heller

N. B.—See also common names to rose species, foot of page 173.

APPENDIX C

444 TESTED ROSES ARRANGED IN CLASSES

*"The flowers desired so deeply by thousands
of lovers and thousands of maids."*

—TASSO

THE list of 157 roses described on pages 101 to 119 is much more exclusive than the following one. This larger list also has been selected with great care to include only the best representatives in each class or family.

Among roses, as with the human race, family characteristics are strikingly evident. A study of these qualities is a great help in learning to know the rose, and there is no better way to do this than to get acquainted with them class by class, perhaps a few at a time, in your own garden. Kinds marked * are described in Chapter X.

Alba

Mme. Plantier

Austrian Briar (Lutea)

*Austrian Copper
Austrian Yellow

Harison's Yellow (Har-
isonii)

Persian Yellow

Hybrid Austrian Briar, or Pernetiana (Hybrid Lutea)

*Arthur R. Goodwin
Beauté de Lyon
Constance
Juliet

*Mme. Edouard Herriot
(Daily Mail)

*Souv. de Claudius Per-
net

*Mrs. Ambrose Ricardo
Rayon d'Or
Soleil d'Or

*Souv. de Georges Per-
net

*Louise Catherine Bres-
lau

Hybrid Musk (R. moschata)

Danaë
Moonlight

Peace
Trier

The Garland

China (R. indica), or Bengal

Archduke Charles
Champion of the World

Lucullus
Queens Scarlet

Viridiflora

Bourbon and Hybrid Bourbon

Beauty of Rosemawr
Hermosa

*Mme. Eugene Marlitt
Souv. de la Malmaison

Zephirine Drouhin

Damask (R. damascena)

Mrs. O. G. Orpen

*York and Lancaster

Hybrid Perpetual

Alfred Colomb
American Beauty
*Anna de Diesbach
Ards Rover, Cl.
Baroness Rothschild
Candeur Lyonnaise
Captain Christy
Captain Hayward
*Clio
Commandeur Jules
Gravereaux
Coronation
Eugene Furst

François Levet
*Frau Karl Druschki
*General Jacqueminot
*George Arends
*Gloire de Chedane
Guinoisseau
*Gloire Lyonnaise
Heinrich Münch
*Hugh Dickson
*J. B. Clark
John Hopper
Jubilee
Ludwig Möller

Mme. Gabriel Luizet
*Magna Charta
Margaret Dickson
Marshall P. Wilder
*Mrs. John Laing
Mrs. R. G. Sharman-
Crawford
*Paul Neyron
*Prince Camille de
Rohan
Roger Lambelin
*Ulrich Brunner
Vick's Caprice

Hybrid Tea

Alice Lemon
Amalie de Greiff
*American Legion
*Antoine Rivoire
Bessie Brown
Betty
Bloomfield Abundance
Bloomfield Progress
British Queen
*Chateau de Clos
Vougeot
Cheerful
Chrissie MacKellar
*Christine
Col. Oswald Fitzgerald
Col. R. S. Williamson
*Columbia
*Countess Clanwilliam
*Dean Hole
Dorothy Page-Roberts
Duchess of Albany
*Duchess of Wellington
Earl of Warwick
Ecarlate
Edith Part
*Edward Mawley
*Eldorado
*Etoile de France
Florence Forrester
Florence Pemberton
*Francis Scott Key
Gainsborough
*General MacArthur
*General-Superior
Arnold Janssen
George C. Waud
George Dickson
Gladys Holland
*Golden Emblem

Golden Ophelia
Golden Spray
*Gorgeous
Grande Duchesse
Marie-Adelaide
*Gruss an Teplitz
Gustav Grünerwald
*Hadley
Henrietta
His Majesty
*Hoosier Beauty
H. V. Machin
Irish Elegance
Isobel
*Jonkheer J. L. Mock
*Kaiserin Auguste
Victoria
*Killarney
*Killarney Brilliant
*Killarney, Double
White
Killarney Queen
K. of K.
Königin Carola
*La France
*La Tosca
*Lady Alice Stanley
*Lady Ashtown
*Lady Pirrie
*Lady Ursula
*Laurent Carle
Lillian Moore
Lieutenant Chauré
*Los Angeles
Lyon Rose
Marquise de Sinety
Meteor
Miss Cynthia Forde
*Miss Lolita Armour

*Mme. Abel Chatenay
*Mme. Butterfly
*Mme. Caroline Testout
Mme. Charles Lutaud
Mme. Colette Martinet
Mme. Dérépas-Matrat
Mme. Edmée Metz
Mme. Edmond
Rostand
Mme. Jenny Gillemot
*Mme. Jules Bouché
Mme. Leon Pain
*Mme. Mélanie Soupert
*Mme. Segond Weber
Molly Sharman-
Crawford
*Mrs. Aaron Ward
Mrs. Andrew Carnegie
*Mrs. Arthur Robert
Waddell
*Mrs. Charles E. Russell
Mrs. Edward Powell
Mrs. E. G. Hill
*Mrs. George Shawyer
Mrs. John Cook
Mrs. S. K. Rindge
*Mrs. Wakefield
Christie-Miller
*Mrs. W. C. Egan
*Mrs. Wemyss Quin
My Maryland
Natalie Böttner
*National Emblem
Nerissa
*Old-Gold
*Ophelia
Pharisaer
*Premier

Hybrid Tea, continued

- | | | |
|--------------------|-----------------------|-------------------|
| Primerose | *Richmond | Totote Gelos |
| *Prince Engelbert | Rhea Reid | Wellesley |
| Charles d'Arenberg | *Robert Huey | White Killarney |
| Prince de Bulgarie | *Rose Marie | White La France |
| Queen of Fragrance | Souv. de Gustave Prat | *William F. Dreer |
| Queen Mary | Souv. du President | William Notting |
| *Radiance | Carnot | William Shean |
| *Red-Letter Day | *Sunburst | *Willowmere |
| *Red Radiance | Tipperary | Winnie Davis |

Moss (R. centifolia muscosa)

- | | | |
|----------------------|---------------------|--------------------|
| *Blanche Moreau | *Crested Moss (Cha- | Princesse Adelaide |
| (Best white) | peau de Napoleon | Wichmoss |
| Comtesse de Murinais | *Henri Martin | |

Polyantha (Pompon; R. multiflora)

- | | | |
|---------------------|--------------------|-----------------------|
| Ännchen Müller | *Gruss an Aachen | *Mme. Jules Gouchault |
| *Baby Rambler, Red. | Jessie | Mme. Norbert Leva- |
| (Mme. Norbert Le- | Katharina Zeimet | vasseur |
| vavasseur) | *Lafayette | *Mlle. Cécile Brunner |
| Clotilde Soupert | Leonie Lamesch | Mrs. W. H. Cutbush |
| Echo | Louise Walter | *Orleans |
| *Ellen Poulsen | Maman Levavasseur | Perle d'Or |
| *Erna Teschendorff | (Baby Dorothy) | Rödhätte |
| Eugenie Lamesch | Maman Turbat | *Tip-Top (Baby Doll) |
| George Elger | Marie Pavic | Triomphe Orleanais |
| Goldfinch | *Miss Edith Cavell | *Yvonne Rabier |
| Greta Kluis | | |

Rugosa

- | | | |
|--------------------|---------------------|--------------------|
| Agnes Emily Carman | *F. J. Grootendorst | Roseaie de l'Hay |
| Alice Aldrich | Hansa | *Rugosa alba |
| Belle Poitevine | *Max Graf | *Rugosa magnifica |
| *Blanc Double de | Mme. Georges Bruant | *Rugosa rubra |
| Coubert | *New Century | *Sir Thomas Lipton |
| *Conrad Ferdinand | Nova Zembla | (White Century) |
| Meyer | Repens alba | |

Tea (R. indica odorata)

- | | | |
|------------------------|-----------------------|------------------------|
| *Alexander Hill Gray | *Lady Plymouth | Mme. Lambard |
| Bon Silene | Lady Roberts | Mlle. Franziska Kruger |
| Bridesmaid | *Maman Cochet | Mrs. B. R. Cant |
| *Devonensis | *Maman Cochet, White | *Mrs. Herbert Stevens |
| *Duchesse de Brabant | Marie Guillot | Perle des Jardins |
| Etoile de Lyon | Marie Van Houtte | Safrano |
| Freiherr Von Marschall | *Miss Alice de Roths- | *Souv. de Pierre |
| *Harry Kirk | child | Notting |
| *Hugo Roller | Mme. Constant | White Maman Cochet |
| Isabella Sprunt | Soupert | *Wm. R. Smith |
| *Lady Hillingdon | Mme. de Watteville | |

Bengal

Empress of China, Climbing.

Climbing Hybrid Tea

Carmine Pillar	*Killarney, Climbing	Mme. Wagram, Com-
Etoile de France,	Killarney White,	tesse de Turenne
Climbing	Climbing	My Maryland,
General MacArthur,	*Lady Ashtown,	Climbing
Climbing	Climbing	*Ophelia, Climbing
Gruss an Teplitz,	La France, Climbing	*Paul's Lemon Pillar,
Climbing	Liberty, Climbing	Climbing
Hoosier Beauty,	Meteor, Climbing	Reine Marie Henriette
Climbing	*Mme. Caroline Test-	Richmond, Climbing
Kaiserin Auguste Vic-	out, Climbing	Sarah Bernhardt
toria, Climbing	Mme. Mélanie Soup-	Souv. of Wootton,
H. V. Machin, Clim-	ert, Climbing	Climbing
ing		*Sunburst, Climbing

Climbing Moss

Cumberland Belle	Le Poilu	Wichmoss
------------------	----------	----------

Multiflora and Hybrids of Multiflora

*American Pillar	Goldfinch	*Roserie
Birdie Blye	Mme. Ghys	*Tausendschön
Clotilde Soupert,	*Mrs. F. W. Flight	Trier
Climbing	*Orleans, Climbing	Veilchenblau
*Ghislaine de Feligonde	Philadelphia Rambler	

Noisette and Hybrid Noisette

Alister Stella Gray	Celine Forestier	*Maréchal Niel
(Golden Rambler)	Fortune's Double	Mme. Alfred Carrière
Chromatella (Cloth of	Yellow	Reve d'Or
Gold)	Lamarque	*Wm. Allen Richardson

Climbing Polyantha

Mlle. Cécile Brunner, Climbing

Rosa rubiginosa (R. Eglanteria; Sweetbriar)

*Amy Robsart	*Lady Penzance	Julia Mannering
Anne of Geierstein	Lord Penzance	Meg Merrills
Flora McIvor	Sweetbriar, Common	Refulgence
Jeannie Deans	Brenda	

Climbing Tea

Bridesmaid, Climbing	Mme. Jules	*Maman Cochet, White.
Devoniensis, Climbing	Gravereaux	Climbing
Duchess d'Auerstaedt	*Maman Cochet, Pink,	Pillar of Gold (E.
Gloire de Dijon	Climbing	Veyrat Hermanos)
Mme. Driout		

Wichuraiana and Hybrids

Alberic Barbier	Elisa Robichon	May Queen
*American Beauty,	*Emily Gray	Milky Way
Climbing	Ethel	Miss Helyett
Aunt Harriet	*Eugene Jacquet	Miss Flora Mitten
*Aviateur Bleriot	Evangeline	*Mrs. M. H. Walsh
*Bess Lovett	Evergreen Gem	*Paul's Scarlet Climber
Casimir Moullé	*Excelsa	Petit Louis
Christine Wright	François Foucard	Purity
Coquina	François Guillot	Prof. C. S. Sargent
Coronation	Freedom	Paradise
Coralie	*Gardenia	Ruby Queen
Debutante	*Hiawatha	Shower of Gold
Désiré Bergera	Ile de France	*Silver Moon
Dorothy Perkins	Jacotte	Source d'Or
Dorothy Perkins,	Jean Girin	Victory
White	Lady Gay	Wichmoss
*Dr. Huey	Longwood	*Wichuraiana
*Dr. W. Van Fleet	Mary Lovett	Wichuraiana variegata

Wild Roses, or Rose Species

Rosa acicularis	R. lœvigata	R. pomifera
R. Banksiæ	R. lucida	R. Prætti
R. bella	R. lucida alba	*R. rubrifolia
R. bicolor	R. macrantha	R. rubiginosa
R. blanda	R. macrophylla	R. saturata
R. bracteata	R. Morica	R. setigera
R. carolina	*R. Moyesii	R. setipoda
R. Davidii	R. multiflora	R. Soulieana
*R. Ecæ	R. multibracteata	R. spinosissima
R. Woodsii Fendleri	R. multiflora cathayensis	*R. spinosissima altaica
R. gymnocarpa	R. odorata	R. Watsonii
R. Helenæ	R. odorata gigantea	R. Wichuraiana
*R. Hugonis	R. omeiensis	R. Willmottii
R. humilis	R. Pissardii	*R. Xanthina
R. Jackii		



APPENDIX D

ANALYSIS OF SPECIES

"The rose yields her sweet blandishment."

—WILLIAM HABINGTON

IT IS doubtful if anyone will have come thus far in this little book who is not, with the author, a real *seeker after truth*. Just as the story of man becomes doubly interesting as we trace back his development from the earlier types of man, so with the rose. A present-day Radiance or Rayon d'Or is a vastly more fascinating object of attention when one can go to another corner of the garden and point out to visitors the true progenitor of that race. Let us study what *has been done* by the guiding hand of man. Family charts are a useful aid in pointing out relationships. A diagram may be more illuminating than many pages of description. Therefore, as an introduction to the various best-known classes, pause a moment to survey this analysis of species on the following two pages.* This the author conceives to be a most helpful outline of the many, many families that make up this interesting race of flowers.

In this book there has not been room to describe the rose species. We would, however, call special attention to certain "types" which we have starred in the following list. Their place is not in a bed with the Teas or Hybrid Teas. Consider for example, Hugonis, that recent acquisition from China. In three seasons it will be 4 to 5 feet high and in bloom two weeks earlier than the early-blooming Harison's Yellow. And so with others: they are unique, hardy, vigorous. They need only to be fittingly placed to give to the garden a charm and distinction quite above the ordinary.

*The following two pages are published here with permission and by courtesy of Longmans, Green & Co., New York, from their book, "Roses: Their History, Development, and Cultivation," by Rev. J. H. Pemberton (see page 105).

The reader will note how far removed from the original species are both the Tea and Hybrid Tea families, whereas from many species there has been almost no development at all.

Equivalents of our common names to some of those on the next pages:

Champney	Noisettiana	Moss	Muscosa
Cherokee	Lævigata	Musk	Moschata
Dog	Canina	Prairie	Setigera
Eglantine	Rubiginosa	Scotch	Spinosissima
Memorial	Wichuraiana	Sweetbriar	Rubiginosa

ANALYSIS OF SPECIES

DIVISION	SPECIES	SUBSPECIES	HYBRIDS
Synstylæ	Arvensis	Ayrshire	Dundee Rambler
	Moschata	{ Brunonii Grandiflora Moschata alba Pissardii }	. . . . . . . . . . . . . . . . . . . .
	Multiflora (simplex)	. . . . .	{ Aglaia Crimson Rambler De la Grifferai
	Setigera	Rubrifolia *	{ Leopoldine d'Orleans Felicite et Perpetue Jersey Beauty Dorothy Perkins
	Sempervirens . . . . .	. . . . .
	Wichuraiana . . . . .	. . . . .
	Stylosa . . . . .	. . . . .
	Indica	Indica sanguinea	{ Bourbons Noisettes Chinas Tea-scented Manetti York and Lancaster
	Semperflorens	Indica odorata	{ Cabbage { (Hybrid Perpetual) Four Seasons Moss Maiden's Blush Marie Leonidas
	Gallica	{ Damascena Centifolia or Provence Muscosa Alba	
Banksiæ	Banksia *	. . . . .

Hybrid Tea

ANALYSIS OF SPECIES, continued

DIVISION	SPECIES	SUBSPECIES	HYBRIDS
Caninae	<div> <div>Canina</div> <div>Rubiginosa*</div> <div>Tomentosa</div> <div>Villosa</div> </div>	<div> <div>Macrantha</div> <div>Pomifera</div> </div>	<div> <div>.....</div> <div>.....</div> <div>.....</div> <div>.....</div> </div>
Cinnamomeae	<div> <div>Cinnamomea</div> <div>Alpina</div> <div>Macrophylla</div> <div>Acicularis</div> <div>Rugosa</div> </div>	<div> <div>.....</div> <div>.....</div> <div>.....</div> <div>.....</div> <div> <div>Rugosa alba</div> <div>Rugosa rubra</div> </div> </div>	<div> <div>.....</div> <div>.....</div> <div>.....</div> <div>.....</div> <div> <div>Americana</div> <div>Mme. Georges Bruant</div> <div>Conrad F. Meyer*</div> </div> </div>
Carolinae	Carolina	Lucida . . . . .	.....
Spinosissimae or Pimpinellifoliae	<div> <div>Spinosissima*</div> <div>Involuta</div> <div>Xanthina*</div> <div>Ecae</div> </div>	<div> <div> <div>Altaica*</div> <div>Hibernica</div> </div> <div> <div>.....</div> <div>.....</div> <div>.....</div> <div>.....</div> </div> </div>	<div> <div>.....</div> <div>.....</div> <div>.....</div> <div>.....</div> </div>
Lutea	<div> <div>Sulphurea</div> <div>Lutea</div> </div>	<div> <div>.....</div> <div> <div>Austrian Copper*</div> <div>Austrian Yellow*</div> </div> </div>	<div> <div>.....</div> <div> <div>Harisonii</div> <div>Persian Yellow</div> </div> </div>
Sericæ	Serica . . . . .	.....	.....
Minutifoliae	Minutifolia . . . . .	.....	.....
Bracteatae	<div> <div>Bracteata</div> <div>(Macartney)* . . . . .</div> </div>	.....	Marie Leonida
Lævigatae	Lævigata* . . . . .	.....	.....
Microphyllae	Microphylla* . . . . .	.....	.....
Simplicifoliae	Berberifolia . . . . .	.....	.....
	Hugonis . . . . .	.....	Sinica

FAVORITE BUSH (TEA, HYBRID TEA, AND HYBRID PERPETUAL) ROSES*

IN THE NEW ENGLAND STATES (Maine, New Hampshire, Massachusetts, Connecticut, Rhode Island):	IN THE MIDDLE STATES (New York, New Jersey, Pennsylvania, Delaware):	IN THE CENTRAL STATES (Ohio, Indiana, Illinois, Kansas, Missouri, Michigan, Wisconsin, Minnesota, Nebraska, Iowa, South Dakota, Arkansas):	IN THE WESTERN STATES (Washington, Oregon, California, Colorado, Utah, Arizona, Wyoming, Idaho):	IN THE SOUTHERN STATES (Maryland, Dist. of Columbia, Virginia, W. Virginia, S. Carolina, Georgia, Florida, Alabama, Texas, Kentucky, Tennessee):
Frau Karl Druschki Ophelia Radiance Duchess of Wellington Mrs. Aaron Ward Gruss an Teplitz Los Angeles Kaiserin Aug. Victoria Killarney Mme. Edouard Herriot Jonkheer J. L. Mock Lady Alice Stanley	Ophelia Frau Karl Druschki Radiance Duchess of Wellington Mrs. Aaron Ward Los Angeles Mme. Edouard Herriot Columbia Gruss an Teplitz Lady Alice Stanley Killarney Red Radiance	Frau Karl Druschki Ophelia Radiance Gruss an Teplitz Jonkheer J. L. Mock Columbia Mme. Caroline Testout General Jacqueminot Los Angeles Sunburst Killarney Mrs. Aaron Ward	Ophelia Mme. Edouard Herriot Los Angeles General MacArthur Frau Karl Druschki Lady Hillington Mme. Melanie Soupert Hoosier Beauty Duchess of Wellington Mme. Caroline Testout Joseph Hill Sunburst	Radiance Frau Karl Druschki Ophelia Red Radiance Sunburst Gruss an Teplitz Mrs. Aaron Ward Kaiserin Aug. Victoria Columbia Mme. Caroline Testout Lady Hillington Duchess of Wellington

FAVORITE CLIMBING ROSES

IN THE NEW ENGLAND STATES:	IN THE MIDDLE STATES:	IN THE CENTRAL STATES:	IN THE WESTERN STATES:	IN THE SOUTHERN STATES:
Dr. W. Van Fleet Silver Moon American Pillar Dorothy Perkins Tausendschön Paul's Scarlet Climber Cl. American Beauty Excelsa Hiawatha Aviateur Bleriot Christine Wright	Dr. W. Van Fleet Silver Moon American Pillar Paul's Scarlet Climber Dorothy Perkins Tausendschön Cl. American Beauty Gardenia Excelsa Christine Wright Hiawatha Cl. Lady Ashtown	Dr. W. Van Fleet Silver Moon American Pillar Cl. American Beauty Dorothy Perkins Excelsa Tausendschön Paul's Scarlet Climber Christine Wright Hiawatha Aviateur Bleriot Gardenia	Dr. W. Van Fleet Silver Moon Tausendschön American Pillar Cl. Mme. Car. Testout Cl. Cécile Brunner Dorothy Perkins Paul's Scarlet Climber Mme. Alfred Carrière Excelsa Cl. American Beauty Maréchal Niel	Silver Moon Dr. W. Van Fleet American Pillar Cl. American Beauty Dorothy Perkins Paul's Scarlet Climber Tausendschön Maréchal Niel Christine Wright Excelsa Gardenia Mrs. Robert Peary

*For explanation of this schedule, see pages 39 and 40.

APPENDIX E

BIBLIOGRAPHY

"As though the rose should shut and be a bud again."—KEATS

THE following list of books on roses, with other helpful information regarding them, is intended to guide the reader to the most worth-while volumes on this subject available in America. It represents the result of many happy hours spent by the author in appraising the comparative value not only of these works but also of many more than here shown which have been deemed less worthy of mention.

The five most complete collections which have been consulted were in the libraries of the Arnold Arboretum near Boston, of the Massachusetts Horticultural Society, Boston, Mass., of the New York Botanical Gardens in Bronx Park, of the New York Public Library, and of the Library of Congress at Washington, D. C.

For the individual intent upon knowing roses better, this list represents the cream, certainly in the English language. As a helpful presentation of the history and development of the rose, Pemberton's book is worth owning. Most elaborately complete and graphic are the massive masterpieces of "The Genus Rosa," by Miss Wilmott, and "Les Roses" (in French) by Redoute. Graveureaux's contributions, also in French, reflect the same infinite care and research that made possible the Roseaie de l'Hay. Dean Hole will always be delightful.

To keep in step with rose progress today one should get the annual publications of the American Rose Society.

Capt. George C. Thomas, Jr., and J. Horace McFarland present respectively the results of extensive experiments and a readable résumé of the present-day rose situation.

In the list of books and periodicals named on the following pages, abbreviations are used to indicate the libraries where they may be found: N, New York Public Library; A, library of Arnold Arboretum, Jamaica Plain, Mass.; C, Congressional Library, Washington, D. C.; B, Library of New York (Bronx) Botanical Gardens; M, Library of Massachusetts Horticultural Society, Boston, Mass. Where ND is used it indicates "Not Dated."

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The Rose the Queen of Flowers should be."*—SAPPHO

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